

Painting Pots – Painting People

strator

VISIT...

LANZAROTE
Caliente.COM

LANZAROTE
Caliente.COM

VISIT...

Document Outline

- [AENOR](#)

Walter Cruells

Inna Mateiciucová

Olivier Nieuwenhuys

PAINTING POTS



PAINTING PEOPLE



PAINTING POTS – PAINTING PEOPLE

PAINTING POTS – PAINTING PEOPLE

LATE NEOLITHIC CERAMICS IN ANCIENT MESOPOTAMIA

edited by

WALTER CRUELLS, INNA MATEICIUCOVÁ AND OLIVIER
NIEUWENHUYSE



Published in the United Kingdom in 2017 by
OXBOW BOOKS
The Old Music Hall, 106–108 Cowley Road, Oxford OX4 1JE

and in the United States by
OXBOW BOOKS
1950 Lawrence Road, Havertown, PA 19083

© Oxbow Books and the individual contributors 2017

Hardback Edition: ISBN 978-1-78570-439-0
Digital Edition: ISBN 978-1-78570-440-6 (epub)
Mobi Edition: ISBN 978-1-78570-441-3 (Mobi)

A CIP record for this book is available from the British Library and the Library of Congress

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording or by any information storage and retrieval system, without permission from the publisher in writing.

For a complete list of Oxbow titles, please contact:

UNITED KINGDOM

Oxbow Books
Telephone (01865) 241249, Fax (01865) 794449
Email: oxbow@oxbowbooks.com
www.oxbowbooks.com

UNITED STATES OF AMERICA

Oxbow Books
Telephone (800) 791-9354, Fax (610) 853-9146
Email: queries@casemateacademic.com
www.casemateacademic.com/oxbow

Oxbow Books is part of the Casemate Group

Front cover: Late Neolithic vessel from Tell Arbid Abyad, Syria. Photographs courtesy Dalibor Všíanský and Archive of Centre of Prehistoric Archaeology of the Near East, Masaryk University, Brno.

Cover design: Inna Mateiciucová and Maximilian Wilding.

Contents

List of workshop participants

1. Late Neolithic pottery studies in the ancient Near East

Olivier Nieuwenhuyse, Walter Cruells and Inna Mateiciucová

2. Transitions and their chronologies in the Pottery Neolithic of the Near East

Walter Cruells

3. Dark and light colour in Early Near Eastern pottery: from technique to decoration

Marie Le Mière, Mihriban Özbaşaran and Maurice Picon

4. Investigating painted, incised and impressed ware from the Late Halaf Period

Anna Gómez Bach

5. The Painted Halaf pottery from Tell Tawila and the Tell Chuera region

Jörg Becker

6. The appearance and development of painted ceramics at seventh millennium Tell Halula (Syria)

Josep-Miquel Faura and Miquel Molist

7. Analysis of paint on prehistoric pottery from Late Neolithic Tell Arbid Abyad (north-eastern Syria)

Dalibor Všíanský and Inna Mateiciucová

8. Late Neolithic pottery at Çatalhöyük East

Lech Czerniak and Joanna Pyzel

9. Late Neolithic pottery traditions on the Upper Tigris valley

Halil Tekin

10. Pots to be seen

Olivier Nieuwenhuyse

11. De l'art ou du cochon?

Béatrice Robert with Loïc Daverat

12. Painted pottery and visual representations at Tell Kurdu
Rana Özbal

13. Animal motifs on Halaf painted pottery
Mücella Erdalkıran

14. What happened in prehistory: can sherds speak?
Petr Charvát

15. More than just a pretty face: the meaningful use of painted pottery in the Halaf Period
Marie Hopwood

16. Decoration of Neolithic pottery in the northern Levant: a view from the Rouj basin
Takahiro Odaka

17. Exploring the data: the pottery of Umm Qseir
Frank Hole

18. Was White Ware always white? Looking into the world of painted plaster
Bonnie Nilhamn

19. Weaving and potting during the Late Neolithic period: are there textile patterns on the early painted pottery of Mesopotamia?
Catherine Breniquet

List of workshop participants

Becker, Joerg

Seminar for Oriental Archaeology and Art History, Martin-Luther-University Halle-Wittenberg, Halle, Halle, Germany.

Beuger, Claudia

Institute for Ancient Studies, Martin-Luther-University Halle-Wittenberg, Halle, Germany.

Breniquet, Catherine

EA 1001-CHEC/Université Blaise-Pascal, Clermont-Ferrand, France.

Charvát, Petr

Department of Near Eastern Studies, Faculty of Arts, University of West Bohemia, Plzeň, Czech Republic.

Cruells, Walter

GRAMPO. Universitat Autònoma de Barcelona, Barcelona, Spain.

Czerniak, Lech

Institute of Archaeology and Ethnology, University of Gdańsk, Gdańsk, Poland.

Daverat, Loïc

ANTEA Bureau d'Études Archéologie, Mulhouse, France.

D'Anna, Maria Bianca

Freie Universität, Berlin, Germany.

Erdalkıran, Mucella

Department of Archaeology, Ege University, Izmir, Turkey.

Faura, Josep-Miquel

MNAC/GRAMPO, Universitat Autònoma de Barcelona, Barcelona, Spain.

Franz, Ingmar

Institut für Archäologische Wissenschaften, Albrecht-Ludwigs-Universität Freiburg, Freiburg, Germany.

Gómez Bach, Anna

GRAMPO. Universitat Autònoma de Barcelona, Barcelona, Spain.

Hole, Frank

Yale University, New Haven, CT, United States.

Hopwood Marie

Department of Anthropology, Vancouver Island University, Nanaimo, Canada.

Jacob, Simon

Aleppo University, Aleppo, Syria.

Joanidis, Sotiris

Rejvíz, Zlaté Hory, Czech Republic.

Kubelková, Hana

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Kubíková, Barbora

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Le Mière, Marie

Archéorient (UMR 5133 CNRS), Lyon, France.

Levenson-Geitel, Felix

Institut für Vorderasiatische Archäologie, Freie Universität Berlin, Berlin, Germany.

López Sánchez, Fernando

University of Oxford, Oxford, The United Kingdom.

Mateiciucová, Inna

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Mateiciucová, Marie

Boarding house *Chata Dolina*, Rejvíz, Zlaté Hory, Czech Republic.

Matoušek, Jakub

Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Meakes, Alison

University of Nottingham, Nottingham, United Kingdom.

Miškolciová, Lucia

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Molist, Miquel

GRAMPO. Universitat Autònoma de Barcelona, Barcelona, Spain.

Navajas, Ana

University of Oxford, Oxford, United Kingdom.

Nieuwenhuyse, Olivier

Faculty of Archaeology, Leiden University, Leiden, The Netherlands.

Nilhamn, Bonnie

Department of Cultural Heritage, Den Bosch, The Netherlands.

Odaka, Takahiro

The University Museum, University of Tokyo, Tokyo, Japan.

Özbal, Rana

Koç University, Department of Archaeology and History of Art, Istanbul, Turkey.

Özbaşaran, Mührüban

Istanbul University, Prehistory Department, Istanbul, Turkey.

Picon, Maurice

Archéométrie et archéologie (UMR 5138 CNRS), Lyon, France.

Pyzel, Joanna

Institute of Archaeology and Ethnology, University of Gdańsk, Gdańsk, Poland.

Robert, Beatrice

TRACES, Université Jean-Jaurès, Toulouse – Equipe Préhistoire

récente du Bassin Méditerranéen, Toulouse, France.

Sedláková, Radka

Archeologia Mesopotamica (non-profit organisation), Brno, Czech Republic.

Struhárová, Veronika

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Švidrnoch, Petr

Boarding house *Chata Dolina*,
Rejvíz, Czech Republic.

Tekin, Halil

Department of Archaeology, Hacettepe University, Ankara, Turkey.

Tencer, Tomáš

Department of Archaeology and Museology, Faculty of Art, Masaryk University, Brno, Czech Republic.

Tkáčová, Lenka

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Trávníčková, Šárka

Department of Archaeology and Museology, Faculty of Art, Masaryk University, Brno, Czech Republic.

Vaněček, Mirko

Czech Geological Survey, Prague, Czech Republic.

Všianský, Dalibor

Department of Geological Sciences, Faculty of Science, Masaryk University, Brno, Czech Republic.

Wilding, Maximilian

Centre of Prehistoric Archaeology of the Near East, Department of Archaeology and Museology, Masaryk University, Brno, Czech Republic.

Late Neolithic pottery studies in the ancient Near East

Olivier Nieuwenhuyse, Walter Cruells and Inna Mateiciucová

Introduction

This book offers a range of perspectives on current research on Neolithic pottery in ancient Mesopotamia. It was produced by members of a working group established during its founding meeting in Brno and Rejvív (Czech Republic) in January 2012. For this first meeting the group adopted the working title “Painting Pots – Painting People”. Participants attending the workshop personally knew each other from previous work, and represented academic institutions from several countries in Europe, the Middle East and Turkey, the United States and Japan (Fig. 1.1). They habitually met in the field, at regular conferences such as the ICAANE or the EAA, and at more specialized workshops such as: *Interpreting the Late Neolithic of Upper Mesopotamia* (Nieuwenhuyse *et al.* 2013), *Beyond the Ubaid* (Carter and Phillip 2010) or *The Emergence of Pottery in Western Asia* (Tsuneki *et al.* 2017). Notwithstanding this frequent interaction, the group felt that there was a need for a platform for specialists working on Neolithic ceramics from the Middle East to come together to exchange information and emerging insights, and to discuss key issues regarding technology, terminology, classification, function and interpretation.

For a venue, the organizers choose to refrain from the soft luxuries provided by the city of Brno, the second-largest city of the Czech Republic and the home base of the Centre of Prehistoric Archaeology of the Near East (PANE) at Masaryk University, which organized the meeting. Instead, the group moved out towards the picturesque village of Rejvív, a natural reserve in the Jeseníky mountains on the Czech–

Polish border. Here, tucked away in thick snow and at -18°C , the group was welcomed with good Czech food and drink. This somewhat romantic, secluded setting provided an excellent occasion to present, listen and discuss with all participants (Figs 1.2–1.5).

This book presents the contributions offered at this meeting and reflects further discussions in Rejvíz between authors and with peer reviewers during the ensuing book production. Notwithstanding the specific cover theme for the first meeting – the study of painted pottery – authors differed widely in the topics they addressed, as well as in the analytical and conceptual tools they wished to adopt. In line with the diversity that characterizes current scholarship in Near Eastern archaeology, the eighteen chapters that follow are quite heterogeneous. We believe that the contributions speak for themselves. In this short introduction to the book we elaborate somewhat on the deliberations that led up to establishing this working group and the organization of the first workshop, and we provide a context for reading the contributions.

The scope of the working group

Given that pottery specialists already meet regularly elsewhere, and since pottery already figures as an important analytical tool in a broad range of archaeological methodologies and perspectives, the perceptive reader might ask: Why yet another, even more specialized working group? We would respond: Why not? Near Eastern specialists in several other disciplines have set inspiring examples by establishing their own specialized series of events and output. Thus, archaeozoologists have come together biannually since 1992 at the *Archaeozoology of Southwest Asia* (ASWA) conference (e.g. Buitenhuis and Clason 1993; Vila *et al.* 2008), specialists in Near Eastern Neolithic lithic industries have organized the *Conference on Pre-Pottery Neolithic Chipped and Ground Stone Industries* since 1993 (e.g. Caneva *et al.* 2001; Healey *et al.* 2011; Borrell *et al.* 2014), stone tool specialists have formed the *Association for Ground Stone Research* (AGSR) since 2015, and obsidian specialists, including those from the Middle East, have published the *International Association for Obsidian Studies* bulletin twice a year since 1989 (Jackson 1989). In an increasingly specialized academic environment, Neolithic pottery specialists in the Middle East are lagging somewhat behind.



Figure 1.1. The working group on Late Neolithic ceramics from the ancient Near East convening for the first time in Rejvtz. From left to right: 1. Simon Jacob; 2. Tomáš Tencer; 3. Veronika Struhárová; 4. Hana Kubelková; 5. Inna Mateiciucová; 6. Ilie Ulysses Wilding; 7. Lucia Miškolciová; 8. Ingmar Franz; 9. Maximilan Wilding; 10. Barbora Kubíková; 11. Felix Levenson-Geitel; 12. Marie Hopwood; 13. Maria Bianca di Anna; 14. Joanna Pyzel; 15. Walter Cruells; 16. Takahiro Odaka; 17. Miquel Molist; 18. Miquel Faura; 19. Anna Gómez Bach; 20. Olivier P. Nieuwenhuyse; 21. Bonnie Nilhamn; 22. Marie Le Mière; 23. Fernando López Sánchez; 24. Ana Navajas; 25. Halil Tekin; 26. Rana Özbai; 27. Joerg Becker; 28. Mucella Erdalkıran; 29. Claudia Beuger; 30. Alison Meakes; 31. Petr Švidrnoch; 32. Marie Mateiciucová; 33. Lenka Tkáčová; 34. Šárka Trávníčková; 35. Dalibor Všianský; 36. Cucky The Dog.



Figure 1.2. The venue for the first meeting of the working group on Late Neolithic ceramics from the ancient Near East in Rejvtz.

There is much to discuss amongst specialists. In the Middle East, unprecedented advances have been made recently in our understanding of early ceramic traditions. The rapid increase of fieldwork targeting the Late Neolithic was one factor that brought our

group to Rejvíz. Prior to the 1980s, excavations focusing upon the Late Neolithic were sporadic, with the period rarely even distinguished as a separate phase in surveys. In recent decades regional projects have begun discussing the Late Neolithic as a separate focus of research (e.g. Nishiaki 1992; Akkermans 1993; Le Mièrè 2000; Lyonnet 2000; Nieuwenhuyse 2000; Nieuwenhuyse and Wilkinson 2007; Ur 2010; Kozbe 2013; Becker 2015; Morandi Bonacossi and Iamoni 2015; Nieuwenhuyse *et al.* 2016) and Late Neolithic excavations have multiplied (e.g. Bernbeck and Nieuwenhuyse 2013).

Concomitantly, there has been a huge increase in studies focusing on various aspects of ceramic production, distribution and consumption in the Late Neolithic. Important advances have been made in integrating relative chronologies with sound absolute dating (Campbell 1992; Cruells 2004; 2006; 2009; Cruells *et al.* 2004; Cruells and Nieuwenhuyse 2005; Bernbeck and Nieuwenhuyse 2013; Akkermans 2014). Archaeometric studies are scrutinizing ceramic-technological traditions with renewed vigour (see several reviews in this volume). It is not just that there is simply more pottery available for study than ever before. Pottery studies are adopting innovative methods and asking new sorts of questions, including use wear analysis (e.g. Hopwood 2013), the “anatomy of the brush stroke” (Castro-Gessner 2013), and the analysis of food residues (Copley *et al.* 2006; Türkecul-Bıyık and Özbal 2008; Evershed *et al.* 2008; 2009; Türkecul-Bıyık 2009; Gregg 2010; Thissen *et al.* 2010; Pitter *et al.* 2013; Nieuwenhuyse *et al.* 2015). In short, there is simply too much new information emerging from the field to be readily digested in more generalized meetings.

The new insights are leading to new discussion. Scholars have become critical of the quality of existing ceramic data sets and of the larger narratives based upon these data sets. In fact, much of the current conceptual framework through which we approach the Late Neolithic dates back to the early twentieth century, before the establishment of current standards of find reporting and analysis (e.g. Herzfeld 1930; Mallowan and Rose 1935; Mallowan 1936; von Oppenheim 1943; Braidwood *et al.* 1944; 1952; Lloyd and Safar 1945; Du Buisson 1948; Perkins 1949; Garstang 1953; Bogoslavskaya 1972; Davidson and McKerrell 1976; Gut 1995). Scholars have become aware of the often circular character of existing definitions and chronologies (Becker 2013; Cruells this vol.), and lament the lack of in-depth discussion of what exactly is encompassed by key terminologies – the problematic definition of “Dark-Faced Burnished

Ware” is a case in point (Braidwood and Braidwood 1960; Odaka this vol.). Such highly specialized issues are often incomprehensible to those unfamiliar with the material at hand but they matter to ceramic specialists.

At first sight, the scope of the working group – Late Neolithic ceramics from the ancient Near East – would appear to be self-evident. This would truly be deceptive: a closer look reveals a complex web of diffuse and shifting meanings. Most formally, in the Middle East the Late Neolithic is also known as the “Pottery Neolithic”. As has recently been ascertained, the first horizon of sustained pottery production in the Middle East emerged c. 7000 cal BC (Tsuneki *et al.* 2017). In Upper Mesopotamia the Neolithic period formally ends with the emergence of what is loosely known as the Northern Ubaid ceramic tradition around c. 5300 cal BC (Akkermans and Schwartz 2003; Carter and Philip 2010; Cruells *et al.* 2013). Strictly in chronological terms, the Mesopotamian Pottery Neolithic period lasted for almost two millennia, between c. 7000 and 5300 BC (Table 1.1).

However, neither of these two dates should be seen in a rigid manner. At the lower end of the chronological spectrum, case studies of the temporary adoption of pottery containers are known in Upper Mesopotamia from several much older, Pre-Pottery Neolithic contexts (Le Mièrre and Picon 1998). Furthermore, when sustained pottery production eventually *did* become established around 7000 cal BC, pottery was made and used in its initial stages on a very limited scale and most likely for purposes wholly different from those it would have subsequently (*e.g.* Nieuwenhuyse *et al.* 2010). There is something to say for the proposition that in terms of significant impact, the “real” Pottery Neolithic began only several centuries after pottery was first introduced. Finally, pottery was not adopted across the Middle East uniformly or even at the same time: regional sequences suggest a markedly differentiated reception of pottery in its early stages (Gibbs 2015; Nieuwenhuyse and Campbell 2017).

Table 1.1. Highly simplified absolute (cal BC) and relative chronologies for many of the sites and regions discussed in this book

	<i>Upper Mesopotamia Southeast Anatolia</i>	<i>Northern Levant</i>	<i>Central Anatolia</i>
5200	Northern	Northern	Middle
5300	Ubaid	Ubaid	Chalcolithic
5400	Halaf	Halaf	Early Chalcolithic
5500			
5600			
5700			
5800			
5900			
6000	Proto-Halaf	“First mixed range”	Pottery Neolithic
6100	Hassuna/Samarra		
6200	Pre-IIalaf	Amuq B	
6300	Pre-IIalaf Early Pottery Neolithic	Early Pottery Neolithic	
6400			
6500			
6600			
6700			
6800	Transitional Initial Pottery Neolithic		
6900			
7000			
Pre-Pottery Neolithic			

At the upper end of the chronological spectrum, it has become generally accepted that the culture-historical transition from the Halaf to the Ubaid period constituted a gradual process of social, economic and ideological change (Campbell and Fletcher 2010; Özbal 2010). Recent work on Halaf-Ubaid-Transitional (HUT) assemblages suggests that there was no perceptible break between the Mesopotamian Late Neolithic (Halaf) and subsequent Ubaid pottery types. However, precisely *when* and *how* these changes manifested themselves in the

ceramic traditions remains intensely debated (Karsgaard 2010; Özbal 2010). As with the first adoption of pottery containers almost two millennia before, this change appears at different temporal and geographic scales.

Nonetheless, many archaeologists would probably agree that certain technological and organizational innovations marked the end of the Neolithic across the ancient Near East. In Upper Mesopotamia, Ubaid-period potters may have been the first to adopt the slow wheel, which allowed them to paint horizontal lines of uniform thickness and to increase stylistic homogeneity over larger geographic distances (Nissen 1988, 46–47). Excavations at Ubaid-period sites in Syria have yielded the world's earliest spatially differentiated, specialized potters' workshops (Nishiaki and Matsutani 2001). Increased specialization is observed also in the adoption of plant-tempered fabrics during the Ubaid period, which facilitated more efficient pottery production (Akkermans 1988). In Anatolia, comparable innovations towards simplification and standardization may characterize the Middle Chalcolithic horizon (Düring 2011). So, if for pragmatic purposes we side-step issues of chronological and culture-historical definition, we might say that participants were concerned with interpreting hand-made ceramic containers from later prehistoric societies in the Middle East that were crafted in pre-industrial modes of production organization.

Nor are the regional or geographic boundaries of the working group very strict. There is notable regional diversity, as reflected in the terminological jungle of cultural traditions often based primarily on pottery style (Bernbeck and Nieuwenhuyse 2013). For instance, sixth millennium painted pottery traditions in Upper Mesopotamia are called after the eponymous site of Tell Halaf in northern Syria. Chronologically this overlaps with the initial stages of the Ubaid tradition in Southern Mesopotamia. These Mesopotamian cultures overlap with, but do not replicate, the Early Chalcolithic horizon in Central Anatolia (Czerniak and Pyzel this vol.). The human-ecological and cultural backgrounds of these entities may hold little in common, but for the purposes of our working group all would qualify for discussion from the perspective of "Late Neolithic Near Eastern ceramics".



Figure 1.3. Rejvîz. Rana Özbal discussing the roles of plain and painted ceramics at Late Halaf Tell Kurdu, southern Turkey.

Participants of the first working group meeting in Rejvîz have mostly worked in Upper Mesopotamia, Southeastern Anatolia and the Northern Levant. Notwithstanding much internal variability, the Neolithic cultures in these sub-regions held much in common, as reflected in common terms and definitions used throughout many chapters in this book ([Table 1.1](#)). However, in addition to this strong “Mesopotamian” focus, participants discussed Neolithic pottery from Egypt presented by Ana Navajas, and the Anatolian Late Neolithic as presented by Ingmar Franz, Lech Czerniak and Joanna Pyzel. The group included colleagues working in Iraqi Kurdistan (e.g. Claudia Beuger). The large geographic scope of the Late Neolithic adds considerably to an already bewildering terminological complexity – where does the “Near Eastern” Neolithic end? The first meeting did not discuss in any depth the important recent discoveries made on Late Neolithic ceramic traditions in, for instance, Northwestern Anatolia or the Southern Caucasus, simply because none of its participants worked in these regions. Subsequent meetings almost certainly will have a different geographic flavor according to the research interests of future participants. As the Egyptian and Anatolian perspectives discussed in Rejvîz showed, there is much to be gained from comparing scholarly traditions in sub-regions that for historical reasons have developed diverging traditions of research (Czerniak and Pyzel this vol.).

Perspectives on Neolithic ceramic studies

In their great synthesis of pottery studies in archaeology, Clive Orton and Michael Hughes frame the history of ceramic studies in three broad phases, which they called the Art-historical, Typological, and Contextual phases, each showing its characteristic properties and favored research themes (Orton and Hughes 2013, 4–14). They observe that older approaches rarely disappear entirely but are gradually subsumed into wider, innovative approaches. Looking at the history of Late Neolithic ceramic studies in the ancient Near East and the themes discussed in Rejv  z through this lens was illuminating (Table 1.2).

Other than a few notable precursors, it would appear that Near Eastern Late Neolithic pottery studies properly began in the “typological” phase. The first half of the twentieth century in particular was the great era of classification, comparative typologies and culture-historical distribution maps (Matthews 2003, 1–19). Importantly, much of the current nomenclature for Late Neolithic pottery dates to this phase, when new categories of (mostly decorated) pottery were named after specific key sites where it was first excavated: the famous Tell Halaf, Tell Hassuna and Tell Samarra “cultures”. In this phase pottery mainly served as a tool for providing a relative chronology for sites and specific stratigraphic levels, as well as for culture-historical attribution (Jones 1997). Unhelpfully but perhaps characteristic for Near Eastern archaeology, key types were defined primarily by shape and decoration, to the neglect of ceramic technology. As a result, modern archaeologists are still struggling to understand precisely how the ceramic traditions they identify today may or may not fit with earlier categorizations.

Table 1.2. Summary of the main phases and themes in the study of archaeological ceramics and the main trends in Late Neolithic studies (after Orton and Hughes 2013, table 1.1)

	<i>Art-historical</i>	<i>Typological</i>	<i>Contextual</i>
Date	c. 1500–1880	c. 1880–1960	c. 1960–present
Scale	Whole pots	Sherds	Microscopic to assemblages
Themes	Archaeometry Technology	Archaeometry Quantification Technology	Archaeometry Ethnography Quantification Technology

Starting in the 1960s and continuing until today, the “contextual” phase of pottery studies across the academic world is characterized mainly by diversity (Orton and Hughes 2013, 4, 12–14). The earlier emphasis on chronologies has far from vanished, but most ceramic specialists no longer see this as the main purpose of archaeological excavation (Matthews 2003, 20–26). The scale of ceramic analyses has expanded to include both microscopic studies and investigations at the assemblage level. Pottery specialists have come to realize the complexities (and relevance) of site formation processes and the immense potential of ethnographic studies. This diversity is faithfully reflected in Late Neolithic studies in the Middle East and in the chapters in this book. Apart from the (diffuse) temporal and geographic boundaries posed by the terms “Late Neolithic” and “Near East”, at first sight there appears to be very little that participants of the working group hold in common. A closer look reveals four major themes with which participants at Rejvitz were concerned: 1) *Chronologies* (Chapter 2); 2) *Color and decorative style* (Chapters 3–9); 3) *Communication and symbolic meaning* (Chapters 10–17) and 4) *Pottery in broader context* (Chapters 18 and 19).

The first theme – *Chronologies* – is a recurrent one in the history of pottery studies in the Near East. Discussions of chronologies in fact surface in very many of the papers in this book. But Walter Cruells’ discussion of transitions was the only one to address the theme very explicitly. To some extent this probably reflects the research interests of individual researchers preferring to provide a quick summary of chronology before moving on to other themes. But as Cruells’ close reading of two key transitional stages shows (the Pre-Pottery to Pottery Neolithic transition and the Pre-Halaf to Halaf transition), much is to be gained from explicitly stating underlying assumptions and accumulated histories of key terminology. Near Eastern prehistorians are still far from having adequately clarified the regional chronologies for the Late Neolithic.

The greater body of the book focuses on the second and third main themes, *Color and decorative style* and *Communication and symbolic meaning*. These themes led to the title adopted for the entire workshop and for this book. Papers in these two sections overlap thematically and most could easily have shifted to the other theme. Roughly, the first set of papers focuses more strongly on the material properties of painted pottery traditions: the raw materials, pigments, and methods of firing adopted to create specific colors and surface effects. The second set of papers focuses somewhat more strongly on the symbolic communication underlying these painted styles in social practice. Not

very surprisingly, many of the papers address both themes as participants readily acknowledged that they go hand in hand. One consensus drawn from this workshop would be that these are two themes guiding significant research agendas.

Many of these papers, then, discuss the practice and social meanings of painted pottery in the Late Neolithic. Not surprisingly, there was much discussion of specific, regional or site-based painted traditions, decorative styles and painted motifs (e.g. Becker; Faura and Molist; Tekin this vol.). Some participants discussed new archaeometric studies to identify pigments and technological systems (e.g. Všíanský and Mateiciucová this vol.). The painted motifs and their potential meanings were the topic of discussion in several papers (Erdalkıran this vol.; Hole this vol.; Robert and Daverat this vol.). But many participants emphasize that not only the painted motifs as such were important. Colors and color contrasts themselves were argued to have been meaningful (Le Mière, Öşbasaran and Picon this vol.; Nieuwenhuysen this vol.). As well, symbolic communication through painting functioned alongside, and complementary to, other Late Neolithic decorative techniques that included: pattern burnishing (Odaka this vol.), slipping (Czerniak and Pyzel this vol.) and surface manipulation (Gómez Bach this vol.).

Throughout the workshop there was much discussion of the social, economic, ritual and even regional context in which specific ceramic traditions played out. Participants fully acknowledged that material culture, including pottery vessels, can only be fully understood if the broader context is taken into consideration (Becker this vol.). In specific contexts in the Near Eastern Late Neolithic painted pottery was apparently known but rejected, as discussed for the youngest levels of Çatalhöyük East (Czerniak and Pyzel this vol.), or it was partially adopted according to local social practices as discussed by Özbek for later Halaf Tell Kurdu (this vol.).



Figure 1.4. Rejváz. Marie Le Mière (right) discussing the adoption of pottery in the ancient Near East.



Figure 1.5. Rejváz. Lively discussion of Near Eastern Late Neolithic pottery traditions.

Finally, a fourth theme – *Pottery in broader context* – encompasses two papers that discuss Neolithic ceramics from the perspective of containers made of plaster (so-called White Ware; Nilhamn this vol.), and textiles (Breniquet this vol.). These papers usefully draw attention to the obvious: Late Neolithic peoples not only employed containers made of pottery. Instead, these functioned in a diverse world in which containers made from various materials played their part (also Le Mière, Özbaşaran and Picon this vol.). Often the operational chains of

the various technologies as well as the container-related fields of activity in which they figured overlapped, leading to intriguing emulations and cross-borrowing.

A call to action

By the time this book reaches a wider audience, five years will have already passed since the start of the turbulence currently engulfing the Arab World. In January 2011 popular protests in Tunisia marked the beginning of the Arab Spring. At the time of writing this introduction, the cruel civil war in Syria that began with unrest in March 2011 has evolved into an ongoing, internationalized multi-sided conflict with no solution close at hand. The ongoing destruction, sickening numbers of casualties and refugees, and the senseless loss of priceless archaeological heritage have turned Syria's struggle into the worst humanitarian nightmare of our times. It is leaving irreparable scars on the field of academic archaeology.

When the meeting in Rejvîz took place, the Syrian drama had just entered its first year and few participants could imagine it would spiral so much out of control. We as organizers and participants express our most sincere support for the hard-hit populations of so many countries in the Middle East, our friends and colleagues whose lives have become severely uprooted in recent times. With this book we express our firm commitment to the cultural heritage of the peoples of Syria, Iraq, Southeastern Turkey, Lebanon and all the places that are part of the memory of all mankind.

Across the world initiatives have emerged to safeguard Mesopotamian archaeological heritage. We believe (pottery) specialists can play their part. Many Neolithic sites remain imperfectly published even after years of fieldwork: here specialist studies can make strong contributions. Academic institutions in Europe and the United States keep valuable collections of material including pottery: these offer opportunities for innovative, specialist approaches such as use wear analysis, residue trace analysis, archaeometric studies of clay preparation and pigment composition, provenance analyses, and so on. In short, an enormous amount of important and exciting work lies ahead because so many interesting things can be done. Future meetings of the Late Neolithic ceramic working group will likely emphasise different regional foci, but the Upper Mesopotamian flame will not be extinguished.

Postscript

The University of Barcelona organized a second meeting in October

2015 in Empúries (Catalonia, Spain). The planning of a third meeting is underway.

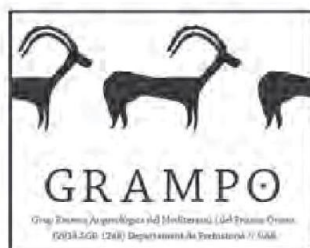
Acknowledgements

This event was made possible with the generous help of many institutions and dedicated individuals. Foremost we as editors wish to thank all the participants to the first meeting. Not all of them decided to go along with the publication but they all contributed to the lively debates in Rejvív. We owe much to the students and academic staff of Centre of the Prehistoric Archaeology of the Near East (PANE), of the Department of Archaeology and Museology and Department of Geological Sciences from Masaryk University, and members of the non-profit organisation Archaeologia Mesopotamica for their great help with the organisation: Hana Kubelková, Barbora Kubíková, Jakub Matoušek, Lucia Miškolciová, Radka Sedláková, Veronika Struhárová, Tomáš Tencer, Lenka Tkáčová, Šárka Trávníčková, Dalibor Všianský, and Maximilian Wilding. In Rejvív, the group received a fantastic welcome from hostess Marie Mateiciucová and excellent meals from Petr Švidrnoch. The group owes warm memories to Prof. Mirko Vaněček (Czech Geological Survey, Prague) and Sotiris Joanidis for their lively presentations on the geology and history of the Rejvív broader region.

When the working group decided to bring the presentations together into a book, contributions were thoroughly edited by the “Brno editing team”: Hana Kubelková, Barbora Kubíková, Lucia Miškolciová, Veronika Struhárová and Lenka Tkáčová. Special thanks to several anonymous reviewers, and especially to Frank Hole and Mark Locicero for their many useful suggestions and excellent work done. The book cover was designed by Inna Mateiciucová and Max Wilding. The publication was supported by the project *Archeologická terénní prospekce, exkavace, dokumentace a muzejní prezentace II* (MUNI/A/0707/2012) of the Specific University Research Grant provided by the Ministry of Education, Youth and Sports of the Czech Republic in the year 2013, by the Netherlands Institution for Scientific Research (NWO), the Faculty of Archaeology of Leiden University, the GRAMPPO research group from the Universitat Autònoma of Barcelona, the Generalitat de Catalunya (2014 SGR-1248) and the Ministerio Español de Educación Cultura y Deporte (HAR 2013-43624 P).



Leiden University



Bibliography

- Akkermans, P. M. M. G. (1988) The Period IV pottery. In M. van Loon (ed.) *Hammam et-Turkman I*, 181–285, Istanbul, Nederlands Historisch-Archeologisch Instituut.
- Akkermans, P. M. M. G. (1993) *Villages in the Steppe*. Michigan, Ann Arbor.
- Akkermans, P. M. M. G. (2014) Tell Sabi Abyad: the site and its chronology. In P. M. M. G. Akkermans, M. Brüning, H. Huigens, and O. P. Nieuwenhuys (eds) *Excavations at Late Neolithic Tell Sabi Abyad, Syria. The 1994–1999 Field Seasons*, PALMA Series 11, 17–28. Turnhout, Brepols.
- Akkermans, P. M. M. G. and Schwartz, G. (2003) *The Archaeology of Syria*. Cambridge, Cambridge University Press.
- Becker, J. (2013) Tell Halaf. New results on the Late Neolithic period in northeastern Syria. In O. P. Nieuwenhuys, R. Bernbeck, J. Rogasch and P. M. M. G. Akkermans (eds) *Interpreting the Late Neolithic in Upper Mesopotamia*, PALMA Series 9, 455–466, Turnhout, Brepols.
- Becker, J. (2015) Tell Tawila, Tell Halaf and Wadi Hamar: Halafund 'Obel-Zeit in Nordost-Syrien. *Regionale Entwicklungen, Gemeinsamkeiten und Unterschiede*. Berlin, ex oriente.
- Bernbeck, R. and Nieuwenhuys, O. P. (2013) Established paradigms, current disputes and emerging themes: the state of research on the Late Neolithic in Upper Mesopotamia. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA Series 9, 17–37, Turnhout, Brepols.
- Bogoslavskaya, N. F. (1972) On the problem of the origin of the Halaf culture. *Sovetskaya*

- Borrell, F., Ibanez, J. J. and Molist, M. (eds) (2014) *Stone Tools in Transition: from hunter-gatherers to farming societies in the Near East*, 7th Conference on PPN Chipped and Ground Stone Industries of the Near East. Barcelona, 2012, Barcelona, Universidad Autónoma De Barcelona.
- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavation on the Plain of Antioch. Vol. 1: The earlier assemblages: Phases A–J*, Oriental Institute Publications 61, Chicago, University of Chicago Press.
- Braidwood R. J., Braidwood L. S., Tulane E. and Perkins A. L. (1944) New Chalcolithic material of Samarran type and its implications. *Journal of Near Eastern Societies* 3, 47–260.
- Braidwood R. J., Braidwood L. S., Smith J. G. and Leslie C. (1952) Matarrah. A southern variant of the Hassunan assemblage, excavated in 1948. *Journal of Near Eastern Studies* 11, 2–75.
- Buitenhuis, H. and Clason A. T. (eds) (1993) *Archaeozoology of the Near East, Proceedings of the first International Symposium on the Archaeozoology of Southwestern Asia and adjacent areas*, Leiden, Universal Book Services, Dr. W. Backhuys.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, Unpublished Ph.D. Thesis, Edinburgh, University of Edinburgh.
- Campbell, S. and Fletcher, A. (2010) Questioning the Halaf-Ubaid transition. In R. A. Carter and G. Phillip (eds) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East*, Studies in Ancient Oriental Civilization 63, 69–84. Chicago, University of Chicago Press.
- Caneva, I., Lemorini, C. Zampetti, D. and Biagi, P. (eds) (2001) *Beyond Tools. Redefining the PPN Lithic Assemblages of the Levant, Proceedings of the Third Workshop on PPN Chipped Lithic Industries*, Ca'Foscari University of Venice, Nov. 1998. Berlin, ex oriente.
- Carter, R. A. and Phillip, G. (2010) Deconstructing the Ubaid. In R. A. Carter and G. Phillip (eds) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East*, Studies in Ancient Oriental Civilization 63, 1–22, Chicago, University of Chicago Press.
- Castro-Gessner, G. (2013) Sequencing practices, revealing traditions: a case study on painters' brushwork. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA Series 9, 125–134, Turnhout, Brepols.
- Copley, M. S., Clark, K. A. and Evershed, R. P. (2006) Organic-residue analysis of pottery vessels and clay balls. In I. Hodder (ed.) *Changing Materialities at Çatalhöyük: Reports from the 1995–99 Seasons*, 169–174, Cambridge, McDonald Institute Monograph.
- Cruells, W. (2004) The pottery. In Ö. Tunca and M. Molist (eds) *Tell Amarna (Syrie) I. La période de Halaf*, Publications de la Mission archéologique de l'Université de Liège en Syrie, 41–200, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W. (2006) Chagar Bazar préhistorique: esquisse de la séquence d'évolution et la périodisation. In Ö. Tunca, A. M. Baghdo and W. Cruells (eds) *Chagar Bazar (Syrie) I: Les sondages préhistoriques (1999–2001)*, 121–142, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W. (2009) Nouvelles données sur les origines et le développement de la céramique Halaf en Syrie. In L. Astruc, A. Gaulon and L. Salanova (eds) *Methods for the Study of the First Pottery Productions: case studies from the Balkans and the Levant*, 93–103, Rahden, Marie Leidorf.
- Cruells, W. and Nieuwenhuyse, O. P. (2005) The Proto-Halaf period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Cruells, W., Molist, M. and Tunca, Ö. (2004) Tell Amarna in the General Framework of the Halaf Period. In W. Cruells, M. Molist and Ö Tunca (eds) *Tell Amarna (Syrie) I: la période de Halaf*, Publications de la Mission archéologique de l'Université de Liège en Syrie, 261–282, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W., Gómez, A., Bouso, M., Guerrero, E., Tornero, C., Buxó, R., Saña, M., Molist, M., Baghdo, A. and Tunca, Ö. (2013) Chagar Bazar in Northeastern Syria: recent work. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. M. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA Series 9, 367–478, Turnhout, Brepols.
- Davidson, T. E. and McKerrell, H. (1976) Pottery analysis and Halaf period trade in the

- Khabur headwaters region. *Iraq* 38, 45–56.
- Du Buisson (1948) *Baghouz. L'ancienne Corsôtê*. Leiden, Brill.
- Düring, B. S. (2011) *The Prehistory of Asia Minor, From Complex Hunter-Gatherers to Early Urban Societies*, Cambridge, Cambridge University Press.
- Evershed, R. P., Payne, S., Sherratt, A. G., Copley, M. S., Coolidge, J., Urem-Kotsu, D., Kotsakis, K., Özdoğan, M., Erim-Özdoğan, A., Nieuwenhuyse, O. P., Akkermans, P. M. M. G., Bailey, D., Andeescu, R. R., Campbell, S., Farid, S., Hodder, I., Yalman, N., Özbaşaran, M., Bıçakçı, E., Garfinkel, Y., Levy, T. and Burton, M. M. (2008) Earliest date for milk use in the Near East and southeastern Europe linked to cattle herding. *Nature* 455, 528–531.
- Garstang, J. (1953) *Prehistoric Mersin*, Oxford, Clarendon Press.
- Gibbs, K. (2015) Pottery Invention and Innovation in East Asia and the Near East. *Cambridge Archaeological Journal* 25/1, 339–351.
- Gregg, M. W. (2010) *Organic residue analysis and the first uses of pottery in the Ancient Middle East*, British Archaeological Report S2065, Oxford, Archaeopress.
- Gut, R. (1995) *Das prähistorische Ninive. Zur relativen Chronologie der frühen Perioden Nordmesopotamiens*. Mainz, Phillip von Zabern.
- Healey, E., Campbell, S. and Maeda, O. (eds) (2011) *The State of the Stone. Terminologies, Continuities and Contexts in Near Eastern Lithics*, Proceedings of the Sixth PPN Conference on Chipped and Ground Stone Artefacts in the Near East, Manchester 2008, Studies in Early Near Eastern Production, Subsistence and Environment series 13, Berlin, ex oriente.
- Herzfeld, E. (1930) Ausgrabungen von Samarra, Band V, *Die Vorgeschichtlichen Töpfereien von Samarra*. Berlin: Verlag von Dietrich Reimer.
- Hopwood, M. (2013) Food, community and the archaeological past: creating community during the Halaf period at Fıstıklı Höyük, Turkey. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA Series 9, 183–190, Turnhout, Brepols.
- Jackson, R. J. (1989) Introduction. *International Association for Obsidian Studies Newsletter* 1, 1–2.
- Jones, S. (1997) *The Archaeology of Ethnicity. Constructing Identities in the Past and Present*, London, Routledge.
- Karsgaard, P. (2010) The Halaf-Ubaid transition: a transformation without a center? In R. A. Carter and G. Phillip (eds) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East*, Studies in Ancient Oriental Civilization 63, 51–68, Chicago, University of Chicago Press.
- Kozbe, G. (2013) The Late Neolithic in the Şırnak Area (southeast Turkey). In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA Series 9, 479–492, Turnhout, Brepols.
- Le Mière, M. (2000) L'occupation proto-Hassuna du Haut-Khabur occidental d'après la céramique. In B. Lyonnet (ed.) *Prospection archéologique du Haut Khabur occidental (Syrie du N.E.)*, vol. 1, 127–149, Beyrouth, Institut Français du Proche-Orient.
- Le Mière, M. and Picon, M. (1998) Les débuts de la céramique au Proche-Orient. *Paléorient* 24/2, 5–26.
- Lloyd, S. and Safar, F. (1945) Tell Hassuna – excavations by the Iraq Government General of Antiquities in 1943 and 1944. *Journal of Near Eastern Studies* 4, 255–289.
- Lyonnet, B. (ed.) (2000) *Prospection Archéologique. Haut-Khabur Occidental (Syrie du N.E.)*, vol. 1. Beyrouth, Institut Français d'Archéologie du Proche-Orient.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.
- Mallowan, M. E. L. (1936) The excavations at Tall Chagar Bazar, and an archaeological survey of the Habur Region, 1934–5. *Iraq* 3, 1–59.
- Matthews, R. (2003) *The Archaeology of Mesopotamia. Theories and Approaches*, London, Routledge.
- Morandi Bonacossi, D. and Iamoni, M. (2015) Landscape and settlement in the eastern Upper Iraqi Tigris and Navkur Plains. *Iraq* 77/1, 9–39.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur headwaters In B. Lyonnet (ed.) *Prospection Archéologique. Haut-Khabur Occidental (Syrie du N.E.)*, vol. 1, 151–260, Beyrouth, Institut Français d'Archéologie du Proche-Orient.

- Nieuwenhuysse, O. P. and Wilkinson, T. J. (2007) Late Neolithic settlement in the area of Tell Beydar, (NE Syria). In M. Lebeau and A. Suleiman (eds) *Beydar Studies I*, SUBARTU 21, 268–303, Turnhout, Brepols.
- Nieuwenhuysse, O. P., Akkermans, P. M. M. G. and van der Plicht, J. (2010) Not so coarse, nor always plain – the earliest pottery of Syria. *Antiquity* 84, 71–85.
- Nieuwenhuysse, O. P., Bernbeck, R., Akkermans, P. M. M. G. and Rogasch, J. (eds) (2013) *Interpreting the Late Neolithic of Upper Mesopotamia*, Papers on Archaeology of the Leiden Museum of Antiquities (PALMA), Turnhout, Brepols.
- Nieuwenhuysse, O. P., Odaka, T. and Mühl, S. (2016) Halaf settlement in the Iraqi Kurdistan: the Shahrizor Survey Project. In K. Kopanias and J. MacGinnis (eds) *The Archaeology of the Kurdistan Region of Iraq and Adjacent Regions*, 257–266. Oxford: Archaeopress.
- Nieuwenhuysse, O. P., Roffet-Salque, M., Evershed, R. P., Akkermans, P. M. M. G. and Russell, A. (2015) Tracing pottery use and the emergence of secondary products exploitation through lipid residue analysis at Late Neolithic Tell Sabi Abyad (Syria). *Journal of Archaeological Science* 64, 54–66.
- Nieuwenhuysse, O. P. and Campbell, S. (2017) The emergence of pottery in West Asia – some reflections on the Tsukuba Conference. In A. Tsuneki, O. P. Nieuwenhuysse and S. Campbell (eds) *The Emergence of Pottery in Western Asia*, Oxford, Oxbow Books.
- Nishiaki, Y. (1992) Preliminary results of the prehistoric survey in the Khabur basin, Syria: 1990–91 seasons. *Paléorient* 18/1, 97–102.
- Nishiaki, Y. and Matsutani, T. (eds) (2001) *Tell Kosak Shamali. The Archaeological Investigations on the Upper Euphrates, Syria. Chalcolithic Architecture and the Earlier Prehistoric Remains*, Vol. 1, Tokyo, University Museum, University of Tokyo.
- Nissen, H. (1988) *The Early History of the Ancient Near East*, Chicago, University of Chicago Press.
- Orton, C. and Hughes, M. (2013) *Pottery in Archaeology*, Cambridge, Cambridge University press.
- Özbal, R. (2010) The emergence of Ubaid styles at Tell Kurdu: a local perspective. In R. A. Carter and G. Phillip (eds) *Beyond the Ubaid. Transformation and Integration in the Late Prehistoric Societies of the Middle East*, Studies in Ancient Oriental Civilization 63, 293–310, Chicago, University of Chicago Press.
- Perkins, A. (1949) *The Comparative Archaeology of Early Mesopotamia*, Studies in Ancient Oriental Civilizations 25, Chicago, University of Chicago Press.
- Pitter, S., Yalman, N., Evershed, R. P. (2013) Absorbed lipid residues in the Çatalhöyük pottery. In I. Hodder (ed.) *Substantive Technologies at Çatalhöyük. Reports from the 2000–2008 Seasons*, 193–200, Los Angeles, Cotsen Institute.
- Thissen, L., Özbal, H., Türkeul-Bıyık, A., Gerritsen, F., Özbal, R. (2010) The land of milk? Approaching dietary preferences of Late Neolithic communities in NW Anatolia. *Journal of Pottery Studies* 26, 157–172.
- Tsuneki, A., Nieuwenhuysse, O. P. and Campbell, S. (eds) (2017) *The Emergence of Pottery in Western Asia*. Oxford, Oxbow Books.
- Türkeul-Bıyık, A. (2009) Chemical characterization of lipid residues in Neolithic and Chalcolithic pottery from Anatolia. Ph.D. Thesis, İstanbul, Boğaziçi University.
- Türkeul-Bıyık, A. and Özbal, H. (2008) *Arkeolojik çanak ve çömleklerde organik kalıntıların belirlenmesi*, Anadolu'dan bazı örnekler 23, Arkeometri Sonuçları Toplantısı, Anıtlar ve Müzeler Genel Müdürlüğü, 249–264, Ankara.
- Ur, J. (2010) *Urbanism and Cultural Landscapes in Northeastern Syria. The Tell Hamoukar Survey 1999–2001*, Oriental Institute Publications 137, Chicago, University of Chicago Press.
- Vila, E., Gourichon, L., Choyke, A. M. and Buitenhuis, H. (eds) (2008) *Archaeozoology of the Near East VIII. Proceedings of the eighth international symposium on the archaeozoology of south-western Asia and adjacent areas (Lyons 2006)*, Travaux de la Maison de l'Orient et de la Méditerranée 49, Lyon.
- von Oppenheim, M. F. (1943) *Tell Halaf. vol 1: die Prähistorische Funde: bearbeitet von Hubert Schmidt*, Berlin, de Gruyter.

Transitions and their chronologies in the Pottery Neolithic of the Near East

Walter Cruells

Abstract

The last 30 years have been crucial for our understanding of the Pottery Neolithic period in the Near East. Time and space have been filled with presumably coherent cultural “packages” as chronological frameworks were constructed on simplistic material comparisons and an inadequate record of radiocarbon dates. Archaeologists have struggled with conceptualizing the “transitions” between these packages. More recently, the increasing pace of field research has made it possible to define new material assemblages. This has resulted in an expanded typo-chronological vocabulary, but it has also led to a reappraisal of pre-existing ceramic series and their chronological terminologies. New insights in these pottery assemblages and their morphological, typological and stylistic traits form the basis for a redefinition of our actual cultural-chronological framework. This paper will discuss two so-called transitional periods that have received much recent attention. The first concerns the initial appearance of the pottery at the end of the PPNB period, and is variously known as *Transitional*, *Initial Pottery Neolithic* or *Pre-Proto-Hassuna*. The second concerns the emergence of the Halaf and is variously known as *Transitional* or *Proto-Halaf*. This paper shall discuss a new chronological framework for conceptualizing these two transitions.

Introduction

In a workshop in Japan in 2009 entitled *The Emergence of Pottery in West Asia*, the organizer, our friend and colleague Akira Tsuneki (2017), says:

"The invention of pottery signifies the beginning of genuine pyrotechnology, the most important technological innovation in human history, which formed the basis of modern industrial technology. Without understanding and considering the origins of pottery, we cannot have a clear picture of other technological innovations, such as the metallurgy of copper, bronze, iron and nonferrous metal, glass working and fine ceramics".

Framing the discussions at the workshop, Tsuneki (2017) emphasizes the importance of studying ceramic transitions and their implications in social and economic terms, but also raised the issue of terminologies (also Campbell 1992; 1998; Akkermans 1993; Bernbeck 1994; Cruells and Nieuwenhuyse 2004; Bernbeck and Nieuwenhuyse 2013).

This paper, therefore, will focus on the theme of ceramic transitions and their chronologies. More specifically I shall discuss two case studies of such transitions. The first concerns the appearance of the pottery in the Near East which takes place precisely in the transition between eighth and seventh millennium cal BC. The second study examines a transition observed at the end of seventh millennium cal BC with the appearance of a new culture defined as Halaf. Halaf Fine Ware pottery is characterised by: the use of a new ceramic technology, a new ensemble of well-prepared fabrics, the development of specialised kilns that allowed potters to manipulate temperature and oxygen levels during the firing and, of course, a luxurious, beautiful set of colourful painted motifs. But I begin with a brief discussion of the concept of an archaeological transition.

The concept of transitions in archaeology

Traditionally it has been accepted since the early days of archaeology that periodization – the practice of categorizing the observed archaeological record into temporal periods – is a rather effective method of ordering data. It is generally seen as a first and necessary step towards further interpretative analysis. However, this process deals with exceptionally complex types of processual and temporal phenomena and thus it overly simplifies historical reality (Grinin 2007). Although many scholars emphasize the great importance of periodization (Green 1992; 1995; Manning 1996; Shanks and Tilley 1987) it is important to realize that the result remains a descriptive abstraction. Nevertheless, if well defined, periodizations may provide a useful handle on periods of time with relatively stable characteristics.

The concept "cultural phase" can also be called a chrono-cultural complex, cultural horizon or tradition. As a key component of the discipline of archaeology, this concept identifies a temporally bounded

periods characterized by recurring assemblages of artefacts, and affecting different domains (Renfrew 1972). Nevertheless, cultural phases cannot be monolithic as they can include different socio-cultural groups that interact at a certain level but are characterized by diverse assemblages (Roux *et al.* 2011).

On the other hand we see that broadly accepted divisions of the archaeological record into main chronological units with formalized subdivisions, makes transitions between these periods fertile ground for differing scholarly opinion (Garfinkel 2009).

Transitions are basically phase changes to the systems by which societies normally invest in innovation, growth, maintenance or lifestyle. For instance, the transition between the rise of large cities during the Pre-Pottery Neolithic B and their decline during the subsequent Pottery Neolithic has recently been exposed to a large degree (Hole 2000; Simons 2000; Akkermans and Schwartz 2003, 57–67). One can then trace a new material-culture complex from the emergence and decline of the settlement architecture, which consisted primarily (but not exclusively) of pottery production.

Some of these changes have been observed at various late PPNB sites and particularly at Tell Halula in the Euphrates (Molist 2013). At the end of the eighth millennium cal BC the architectural layout of Tell Halula demonstrated a well-planned space that was built well and seemed “compact”. This changed into a new spatial model that exhibited architectural forms varying from round to rectangular, and structures that were specially built in large open spaces. Nevertheless, in spite of marked differences in settlement system, ritual and material culture, it seems clear that this transition can be seen as a transformation instead of a hiatus (Verhoeven 2002).

One of the most relevant items of this material culture package was undoubtedly the appearance of the first pottery vessels around 7000 cal BC and in transitions pottery studies they were, and are, a key notion. Pottery classifications guide archaeologists how to do research, slicing up cultural periods thus creating “transitions” everywhere. Late Neolithic pottery traditions are full of periodizations which change rapidly as new discoveries appear. With the growth of prehistoric archaeology, the use of chronological terminology also has expanded. This has led to a true proliferation of “transitions” observed in the record and we have seen that terms referring to periodization in Near Eastern archaeological publications often mention *transitions* or *transitional stages*.

Analyses of patterns of sameness and difference in the style and decoration of manufactured objects, and especially in the evolution of

pottery technology can indicate how people used their material culture to structure and to communicate their identities (Wells 1998). So how did people create and use material culture to define themselves as individuals in their relationships with other individuals and in relation to other social groups?

Etymologically the word *transition* makes reference to a passage from one form, state, style, or place to another. A characteristic of Near Eastern archaeology is that ceramic traditions and their transitional stages remain notoriously poorly defined, and it is very rare for researchers to reach a consensus on what a specific “transition” encompasses in terms of ceramic contents (Bernbeck and Nieuwenhuyse 2013).

Another issue haunting prehistoric archaeology is the choice of terminology. Already since the earliest discovery of Near Eastern prehistoric pottery these passages from one stage to another have been described differently by to each investigator. For instance, scholars have discussed the passage, at around 7000 cal BC, from the end of the Pre-Pottery Neolithic period to the Pottery Neolithic with different terms, including *Initial Pottery Neolithic* (Nieuwenhuyse *et al.* 2010), *Early Pre-Halaf* (Faura and Le Mièrre 1999), *Transitional*, *Pre-Proto-Hassuna* (Nishiaki and Le Mièrre 2005) or even *early Pre-Proto-Hassuna* (Bader and Le Mièrre 2013). It is in this sense of *passage* that all the terms just mentioned refer to a slow and gradual transformation from a state to another. In this transition, although the population is not thought to differ from the previous period, other changes are more visible such as the new architectural layouts affecting many sites; these are where the first pottery vessels begin to appear in very low numbers.

As for the Pre-Halaf to Halaf *transition*, the two terms *Transitional* (Akkermans and Le Mièrre 1992; Akkermans 2000; Akkermans *et al.* 2006; Nieuwenhuyse 2007) and *Proto-Halaf* (Cruells and Nieuwenhuyse 2004; Cruells 2013) have been introduced recently to define a cultural phase which represents the origins and emergence of the Halaf in northern Mesopotamia, with a resulting reformulation of the generally admitted “Halaf cultural package”. This new stage appears at several sites without a perceptible break from the previous stages. The key evidence for the Proto-Halaf period has been the appearance of novel ceramic productions that were manufactured with a very high degree of technological skill and decorated in a very unique way.

The Transition to the Pottery Neolithic

Retrospectively, we see that the material elements and technology required to build and fire a clay pot were widely known long before the first appearance of pottery. The use of fire an innovative technological process stretches back more than 200,000 years, while the technology to prepare plaster from limestone at high temperatures was known already during the Aceramic period, in which houses were built with hard lime-plastered floors and walls. At many Aceramic sites figurines, tokens and other small artifacts are found. They were handmade of clay and some of them were clearly fired although others are simply sun dried or burnt in open fires or forming part of ritual processes.

In the Near East, the use of mineral and vegetal pigments for painting is attested already during the Upper Palaeolithic. These very early forms of primitive art were either portable mobiliary art (often small female figurines) or painted symbols and figures on the walls and ceilings of caves. Later on this art was developed and much more integrated into settlements and daily life. Ochre is often connected with early human burials, the well-known plastered and painted Neolithic skulls, as well as the first settlement art in Pre-Pottery Neolithic sites in the Near East (*e.g.* Contenson 2000; Simons *et al.* 1990; Stordeur 2003; 2006; Stordeur and Khawam 2007).

The earliest evidences of painting in the Near East have been found in Syria and in Turkey. At the site of Dja' de al Mughara, in northern Syria, the discovery of a remarkable mural dating back to the ninth millennium cal BC represents one of the oldest paintings ever found in the Near East (Coqueugniot 2000; 2009; González 2009). The walls show a series of geometric painted patterns using black, white and red colours. The site of Çatal Höyük in Central Anatolia (Mellaart 1962) became famous in the late 1950s because of the spectacular wall paintings inside the houses. The recent work at this site has found some paintings that date back to around 9000 years old (http://www.catalhoyuk.com/downloads/Archive_Report_2011.pdf, accessed May 2014). These recently discovered paintings were found in different buildings and show that the same design was repeatedly painted and repainted on multiple layers of plaster. The design is enigmatic. It could show bricks in an image of walls and pathways in the Neolithic town, or may be just presents a geometric design? In other buildings, they discovered a row of handprints across the north wall, leading towards the northwest platform. In Syria, the site of Tell Halula (Molist 1998; 1999) yielded several paintings dated of the late PPNB period. Some of these decorated a space close to a hearth on a floor, while others were placed on the walls of the houses. The

paintings of Tell Halula mainly show schematized females figures represented as silhouettes in red solid colour and presented mostly in a frontal or profile position.

To summarise, the technologies needed to produce ceramic vessels did not appear suddenly. Technologies involving clay manipulation, firing processes and painting techniques represent a very early experience. So when we find the first painted pottery vessels during the seventh millennium cal BC at many Near Eastern sites, their introduction must be seen as a consequence of much older practices involving the production of art objects, and the use, supply, and creation of pigments, through different treatments and transformation processes.

The earliest ceramic horizon was very poorly documented in the northern Levant and Euphrates valley in particular, and in Western Asia more broadly until the early 1990s. In the Euphrates valley area not a single site documenting the earliest stages of the Pottery Neolithic had yet been excavated and knowledge of the few documented Late Neolithic settlements was deficient. This image led to interpretations that postulated a loss of regional influence compared to earlier periods or even a displacement of the population to other neighbouring regions such as the coastal region or the Jezirah. The poor settlement record suggested a break in settlement between the pre-ceramic horizon and the ceramic Neolithic, comparable with the so-called “hiatus palestinien” observed in the southern Levant (Hours and Copeland 1983; Cauvin 1985; Moore 1985).

Over the last two decades archaeological research in the Euphrates Valley has attested to continuity in human occupation. As well, our perspective on the Pottery Neolithic has changed dramatically. For a long time archaeologists followed, without explicit justification, an interpretive framework in which the first pottery productions were assumed to have been poorly manufactured, poorly fired and characterised by large amounts of plant temper. Known as “*poterie s friables*” these early wares were situated in a linear technological evolution which was assumed to have progressed from very simple concepts towards more complex and highly elaborated pottery traditions (Le Mièrre 1986; Le Mièrre and Picon 1998; Contenson 1992; 1997).

Currently we are faced with a new reality which necessitates a radically different explanation. We now know that the first pottery vessels attested in the region were completely different from what had always been assumed. They were characterised by a highly developed

ceramic technology. Around 7000 cal BC communities inhabiting the Euphrates Valley formed part of a broad cultural horizon spread across Upper Mesopotamia and the Northern Levant, that was characterized by ceramics similar in fabric, inclusions, firing and surface treatment. We still do not know where the earliest pottery production centres were situated, or why local ceramic assemblages differ morphologically and typologically. Other important issues are the social processes which linked these different sub-regions, the social organization of the regional groups using this early ceramic assemblage, and the role of early pottery for the construction of social identities.

What is known as *Black series* represents a very particular and specific type of early pottery. First documented at the site of Tell Halula in the Syrian Euphrates Valley (Faura and Le Mièrre 1999), these new pottery vessels found close parallels a few years later at the site of Akarçay Tepe in the Turkish Euphrates and not far from Tell Halula (Arimura *et al.* 2000; 2001; Cruells *et al.* 2017).

The *Black series* has been identified as technologically advanced and has very compacted and heavy fabrics that are defined by the inclusions of a calcite grained mineral temper. The surfaces were usually thoroughly burnished. Due to their firing at high temperatures and reducing atmospheres the vessels consistently offer black cores and dark, glossy surfaces, which led the team of Tell Halula to adopt the term.

Subsequent work attested to other very early pottery productions where the main common element was the inclusions of mineral temper in a large variability of sizes and nature and a very high firing processes (probably around 900°C). These ceramic qualities were very similar to ceramic productions observed at other sites in northern Syria, including Tell el-Kerkh (Tsuneki and Miyake 1996), Sabi Abyad (Nieuwenhuyse *et al.* 2010), Tell Shir (Nieuwenhuyse 2009) or Tell Seker al-Aheimar (Nishiaki and Le Mièrre 2005), in some south-east Anatolian sites like Yumuk Tepe (Caneva 1999), Salat Cami Yanı (Miyake 2005; 2011), Mezraa Teleilat Höyük (Karul *et al.* 2002; 2004) and at the mentioned Akarçay Tepe.

The site of Akarçay Tepe is situated on the left bank of the Euphrates in Turkey, and was excavated between 1999 and 2009 by a joint team from the University of Istanbul and the Autonomous University of Barcelona. At this site the adoption of pottery can be observed in close detail, and the few pottery sherds that had appeared already in the final PPNB layers belonged to a very limited number of vessels. The introduction of pottery was associated with stratigraphic

continuity. Sometimes a building erected in the final phase of the PPNB re-used earlier walls, was given a new floor, and had a few ceramic sherds that provided evidence for the first use of pottery. This phenomenon of stratigraphic continuity across the PPNB-PN threshold is also observed at the site of Tell Halula and at other Late Neolithic sites (Cruells *et al.* 2017). Actually it seems clear that there was not an isolated point of unique invention but instead a polygenic complex process, in which different societies gradually experimented, adopted and developed this ceramic technology.

At Akarçay Tepe the total number of potsherds recovered from the earliest pottery-bearing layers – termed phase I – are very, very low. Such low quantities are a recurrent feature of earlier ceramic production across the region (Arimura *et al.* 2000; Cruells *et al.* 2017). At Akarçay Tepe, in Trench 20, pottery first occurs in levels 11 and 10 (see Fig. 2.1) and only from level 9 onward do we observe a gradual increase in the number of sherds. This increase is associated with an important change in the raw materials and clay preparation strategies. Initially, in layers 11 to 7, the pottery was mineral tempered exclusively. From layer 6 onwards the total number of sherds significantly increases and plant-tempered sherds became dominant (Fig. 2.1).

The earliest, exclusively mineral-tempered pottery is highly homogeneous in terms of its technology. Several kinds of minerals have been observed in the clay fabric macroscopically. Thin section analyses suggest the presence of several contemporaneous groups based on the composition and nature of the clays and inclusions. These include fabrics containing calcite grains (38.13% of the total), calcite grains and sand, sand with particles of mica, a few examples containing carbonates (42.21%), and sherds with small basalt grains (8.63%). In the final stage of Phase 1 we find fabrics in which mineral inclusions are mixed with plant material (11.03%).

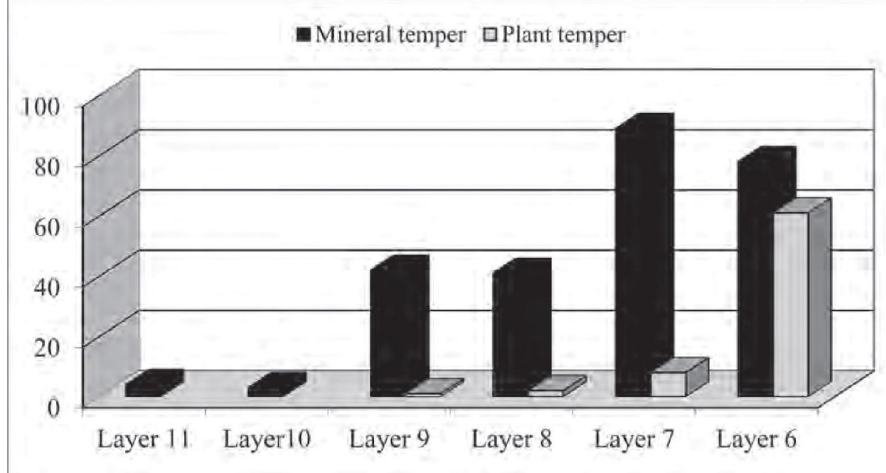


Figure 2.1. Akarçay Tepe. Total number of pottery sherds counted by layer in Phase 1 showing the gradual increase in ceramic quantities and the shift from mineral to plant temper in the upper layers of Phase 1 (based on counts from Trench 20).

Advanced firing expertise was applied to these ceramics. The majority of the pots were fired in completely reducing atmospheres, turning the sections and surfaces dark. Completely oxidising firings were also practiced, resulting in red/orange surfaces and cores. Alternating oxidising and reducing atmospheres are also present, which resulted in bitone or sandwich cores.

In spite of the very limited number of complete or reconstructable vessels we can say something about the characteristic shapes. Typical shapes are deep bowls with straight or convex-sided walls and profiles that were slightly closed. The vessels had flat or round rims and flat or slightly convex bases. Some vessels wear a pair of perforated lugs (Fig. 2.2). Necks or carinated profiles are entirely absent.

Nearly all the potsherds recovered from phase 1 bear strongly burnished surfaces. Although at this very early stage there is not yet any evidence of painted ceramics, it is interesting to point out the effects of burnishing on the surface appearance of the vessels. Burnishing resulted in different surface colours, and it is possible that this was intentional. Light-red burnished surfaces were the most popular (around 43% of the total), followed by black (26%), light grey (17%) and dark-red surfaces (14%) (Fig. 2.3/colour Pl. 1). So far we have not detected any chronological patterning; the distribution of different colours through Phase 1 appears to be random. The variation in surface colour could be achieved by various means. Factors involved probably included control of firing conditions, the position of the pot inside open bonfires and the use of different raw materials. Further investigation of the ceramic technology will shed new light on

the nature of colour variation. Colour differentiation may have had a symbolic role in distinguishing identities such as gender, status, ethnicity or religion.

The combined technological traits would in principle allow these ceramics to be used for cooking on fireplaces because of their high resistance to thermal shock. It is therefore perhaps surprising that only few sherds at Akarçay Tepe show surface evidence of having been exposed to smoke and fire. Due to its hardness, mineral tempered fabric, well burnished surfaces, and their ledge-handles to facilitate moving the bowls on the fire, this pottery could also have been used efficiently for cooking foodstuffs with alternative boiling processes. They may even have been used for storing liquids or grain. To us today it may seem to be self-evident that cooking foodstuffs could improve the daily diet, reduce the level of disease and make optimal use of resources. However, at Akarçay Tepe in this first half of the seventh millennium cal BC this specific kind of pottery vessels remained quite limited in number. The very low numbers with which the vessels occur, perhaps not more than two or three vessels in a layer, suggests that rather than having a domestic utilitarian function they were prestigious products.

It is still not clear whether these first vessels were locally made or arrived at the site from elsewhere. Put differently, we do not (yet) know if the craft was locally invented at Akarçay Tepe or arrived at the site already fully developed. Future investigations should bring light to this important aspect. What is truly remarkable, is that this initial stage of high quality pottery did not last very long. It was soon followed by the appearance of rapidly increasing numbers of mass-produced, mostly plant-tempered ceramic vessels. This important shift indicates a change in the role of pottery into an everyday product, now locally made, and used for creating and reinforcing social relations at an increasing scale. It would lead beyond the scope of this paper to discuss these later developments but we may think of the role of pottery containers in food consumption, feasting and commensality (Dietler 1996; Jones 2007).

Interestingly enough, in the Euphrates region decorated pottery did not appear at all in the earliest stage of the Pottery Neolithic. Elsewhere researchers have observed painted pottery already in the earliest Pottery Neolithic phase (Nieuwenhuyse *et al.* 2010, 79–81). In stark contrast, at both Tell Halula and Akarçay Tepe, the earliest evidence for painted pottery dates around the middle of the seventh millennium cal BC (see Faura and Molist this vol.). At this much later stage painted decoration first began to appear with the coarse plant-

tempered wares and subsequently also with other ware categories (Fig. 2.4/Colour Pl. 2). The first painted pottery at Akarçay Tepe are small vertical sided bowls showing very simple geometric patterns, some of which resemble the Hassuna painting traditions (Fig. 2.4, A and B). Later on the medium-sized jars appear, which are coarsely made, and have a high neck with its upper part painted dark red and burnished. These jars are also sometimes decorated with impressions that will become very classical and common (Fig. 2.4, C). Also widespread at the second half of the seventh millennium are the first attempts to manufacture fine mineral tempered wares with geometric motifs painted over a light slip (Fig. 2.4, D).

The painted pottery productions described represent the earliest evidences at the sites of Akarçay Tepe and Tell Halula, as well as other seventh millennium Near Eastern sites, but it is still not clear if they represent a direct precedent to the future productions that will appear at the end of the millennium. At that time, around 6100 cal BC, and up to the beginning of the fifth millennium (around 4700 cal BC) painted pottery is dominant in all parts of northern Mesopotamia and is characterised by a highly elaborate painted decoration that has been subdivided traditionally into different culture groups. The so called Samarra, Halaf or Ubaid present a broad catalogue of ceramic shapes where painted decorations are dominant. As we will see, this second transition will bring together global concepts of pottery productions with a new manufacturing technology, clay preparation, adding the tempers, new firing techniques, new typologies, decoration patterns, and a novel and massive use of tableware.

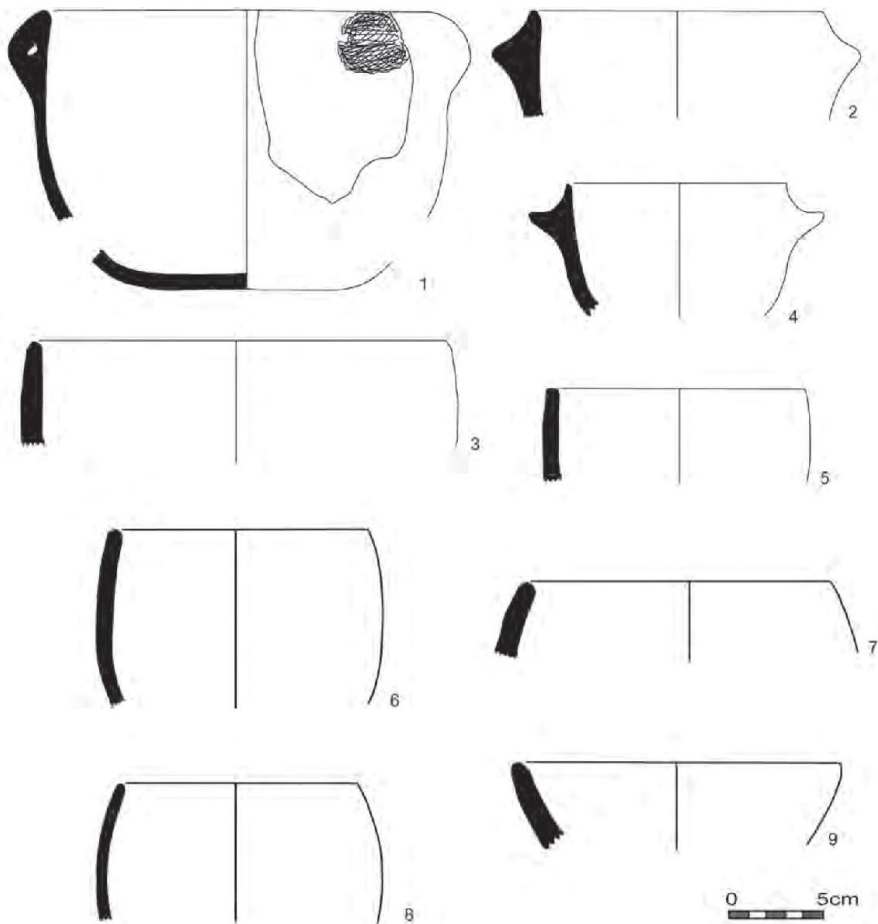


Figure 2.2. Akarçay Tepe. Vessel shapes characteristic for the Phase 1 pottery. (1. Flat based, vertical convex-sided bowl, 2. Vertical convex-sided bowl with two opposite ledge-handles, 3. Vertical convex-sided bowl, 4. Slightly retrieved convex-sided bowl, 5. Retrieved convex-sided bowl and 6. Everted convex-sided bowl).

The transition to the Halaf Period

The question of the origins of the Halafian world has been a major, recurrent theme for archaeological study over the last half century. In the words of Peter Akkermans (Akkermans 2000, 43) “The Halaf culture is one of the most intriguing phenomena of the later prehistoric Near East”. In fact the first reference to fine, painted pottery goes back to 1908 when the British archaeologist John Garstang (1908) made an excavation at the Turkish site of Sakje-Geuzi. Garstang did not grasp the importance of the painted pottery that we identify today as Halaf. The pottery gained its name thanks to the excavation and the discovery of a set of extraordinary fine painted pottery at the eponymous site of Tell Halaf by the Prussian Baron, von

Oppenheim (1931; 1943) in 1913. Nevertheless it was not until the 1930s, when the archaeologist Max Mallowan excavated the site of Tell Arpachiyah that a first sequence for this culture was established (Mallowan and Rose 1935; Perkins 1949) which lasted for a long period. Akkermans (1993, 5) remembered this when stating, “In spite of over 50 years of Halaf research, it is frustrating to see how little is actually known about Halaf society, and how little progress has been made in terms of interpretation and evaluation since Mallowan’s excavation at Arpachiyah in 1931–32”. Since these first discoveries, the painted Halaf Fine Wares in northern Mesopotamia have drawn the attention of many researchers due to the complexity of its painted designs, its distinctive character and also its widespread distribution.



Figure 2.3. (Colour Pl. 1). Akarçay Tepe. The colours of the burnished exterior surfaces of the pottery from Phase I (A, Black; B, Dark red; C, Light red; D, Light grey).

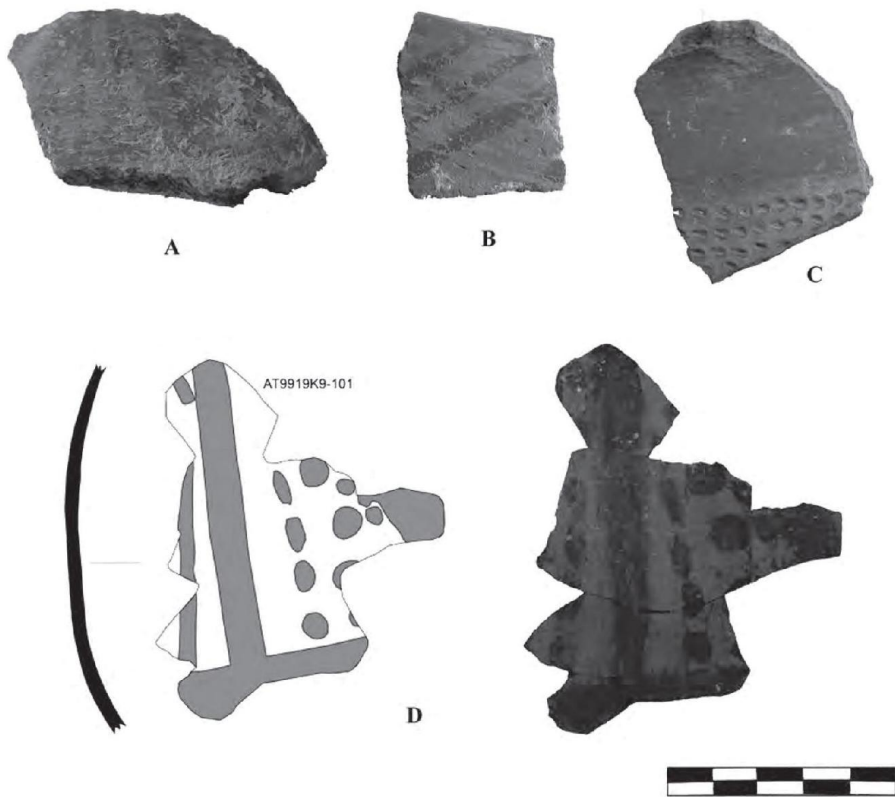


Figure 2.4. (Colour Pl. 2). Akarçay Tepe. The earliest decorated pottery, dated to mid-seventh millennium. A and B: Rim fragments of medium-sized open bowls with painted oblique lines in red colour. C: Fragment of a globular jar with a tall neck carrying a burnished red slip on the shoulder and impressed decoration on the body. D: Fragment of a Fine Ware large globular jar with a geometric pattern painted in dark red on a light slip.

This use of the concept of a culture as a homogeneous, geographically bounded entity necessitates a search for the “origins” of the Halaf. Ever since it was first defined investigators excavating halafian sites have proposed different origins, territorial extensions and formation processes for this culture. In any case most of the theories proposed attributed the emergence of the Halaf culture to invasions or migrations that replaced existing local populations (e.g. Mallowan and Rose 1935; Mellaart 1978 and also Bogoslavskaja 1972; Davidson 1977). Others associated the spread of the pottery with trade to explain the extensive distribution of the Halafian features (Perkins 1949; Braidwood and Braidwood 1960; Watson and LeBlanc 1973).

In common archaeological parlance, the definition of an archaeological “culture” is entirely based on the formal attributes and similarities shared by one or sets of items (Kossinna 1911; Childe 1929; 1952; Bernbeck 1997; Trigger 2006). Thus, the cultural

“package” which has traditionally defined the Halaf “culture” was composed foremost by its extraordinary painted pottery, but also by the famous circular buildings named *tholoi* by Mallowan, a characteristic corpus of beads, tokens, and seals suggesting complex socio-economic structures, painted female figurines, and a sedentary agricultural economy (Watson 1983; Davidson 1977; Breniquet 1987; Campbel 1992; Akkermans and Schwartz 2003).

This traditional notion of a unified cultural “package” remained relatively unquestioned for over 80 years. However, it has been deconstructed recently (Akkermans 1993; Bernbeck 2008; Campbel 1992; 1998; 1999; Cruells and Nieuwenhuyse 2004; Nieuwenhuyse 2007; Cruells 2008). The debate has focused both on the theoretical shortcomings of the culture concept as it has been traditionally understood, but also on the new evidence emerging from the field contradicting its assumptions. As researchers have demonstrated, many of the main components were already common during the second half of the seventh millennium cal BC and thus well before the emergence of the Halaf ceramic assemblage.

Archaeological field research over the last 20 years has changed substantially our understanding of the role of the northern Syrian Jezirah and the Euphrates valley as contributing to the gradual emergence of the Halaf cultural tradition. Today we do have a new interpretation scheme which sees the “origins” of the Halaf as a polygenic phenomenon with centres in the upper Syrian Euphrates, the Balikh and the Khabur areas. Moving away from the traditional notion of a cultural “package” defining the “Halaf culture”, today many investigators would hold that only the characteristic painted pottery represents an unifying material element across a culturally diverse northern Mesopotamia in the Late Neolithic.

The excavations at Tell Halula, in the Euphrates valley, and Tell Chagar Bazar, in the Khabur headwaters, have contributed much to these interpretative developments. In the following I shall discuss some new insights and questions arising from the work at these two sites.

Tell Halula, excavated since 1989 by the Autonomous University of Barcelona directed by Miquel Molist, is located on the right bank of the central Syrian Euphrates. It is an exceptional archaeological site with an area of 8 hectares and more than 11 m of stratigraphical sequence. The excavation of more than 4000 m² allowed for an analysis of continuous community development for over 2000 years, from the Middle PPNB up to the end of the Halaf period (Molist 2013; see Faura and Molist this vol.). The new archaeological project at Tell

Chagar Bazar started in 1999 as a joint mission between the University of Liege and the DGAM of Damascus. A team from the Autonomous University of Barcelona, under the direction of the author, investigated the Halaf deposits of the sixth millennium. The prehistoric excavations were situated at the north-western area of the site where a 9.50 m deep sequence of the Halaf period was exposed.

At both sites the archaeological phase that represents the transition between the later Pre-Halaf stage and the Early Halaf around 6000 cal BC has been investigated in detail. This intermediate, Transitional phase has been termed ProtoHalaf (Cruells and Nieuwenhuyse 2004; Cruells 2013). It represents a cultural continuity with the previous stages but it is characterized by the appearance of new ceramic technologies and new pottery types that gradually replaced the previous ones.



Figure 2.5. Tell Halula. A Large circular building (tholos). The building was erected in the final Pre-Halaf period. It was rebuilt around 6100 cal BC during the early Proto-Halaf period.

At Tell Halula, the Proto-Halaf stage represents a continuity in settlement, architectural layout, daily economy and material culture. An extraordinary example of cultural continuity across an important archaeological transition, some of the circular houses inhabited by the pre-halafians continued to be inhabited, after a reconstruction, by the proto-halafians (Fig. 2.5).

At Chagar Bazar, the Proto-Halaf stage represents the first attestation of occupation, as no Pre-Halaf or Hassuna settlement has been observed so far. Since 1999 a series of soundings located on the north-western part of the tell and a large exposure (Chantier F) on the

north-western slopes of the tell document this stage. The first Proto-Halaf occupation, identified at a depth of 2.50/2.70 m under the actual landscape, is represented by large circular buildings partially sunk into the virgin soil. The Proto-Halaf stage at Chagar Bazar was chronologically a little later than the start of the corresponding phase at Tell Halula. In other words, Tell Chagar Bazar represents the later stages of the Transition, whereas at Tell Halula the entire sequence is documented. However, the two ceramic assemblages contain very similar characteristics.

One of the key elements to define the Proto-Halaf ceramic assemblage is a change in its composition. What is termed the Proto-Halaf starts with the introduction of a small proportion of a new kind of pottery: finely made, mineral-tempered Fine Ware. This Fine Ware represented a true innovation in pottery production and carries a complex and new style of painted decoration, which sometimes resembles the so-called Samarra style.

Fine Ware was made of very fine clay with small or invisible mineral inclusions. It is not always clear, however, if these represent a true “temper” as the inclusions may have been naturally present in the sandy clays selected. In addition to the clay fabric, another defining feature of this pottery in terms of its ceramic technology is the innovative way it was fired. Potters must have employed kiln types in which oxygen fluctuations could be more closely controlled, resulting in high percentages of orange cores, which indicate oxidizing firing conditions.

The general picture then, when looking at a Proto-Halaf ceramic assemblage, is one of continuity. Apart from the introduction of painted Fine Ware it looks like highly similar, if not identical, to the previous late Pre-Halaf assemblages. These traditions passed on through generations would likely be specific in each site but also regionally. Pottery shapes and designs reflect the variability and similarity resulting from shared knowledge and production practices in a large region occupied by different people groups.

The catalogue of vessel shapes is quite limited (Fig. 2.6). It is dominated by straight sided bowls, convex sided bowls, curvilinear bowls, jars with short or high neck, simple closed convex sided bowls and closed bowls or jars with neck. Vessels normally had flat or round bases.

Proto-Halaf pottery paintings are mainly made in black colour but dark red and plain red are present as well. In most cases the vessel surface was covered in a light coloured slip which greatly enhanced these dark colours. The design pattern on the external surfaces mainly

consists of geometric motifs and it usually covered the entire vessel. Motifs on the interior surface were largely limited to the space below the rim. Most popular interior motifs include the classical “dancing ladies”, horizontal bands, undulated lines or cross-hatching.

Finally I would like to make reference to a specific trait observed at both the sites presented here. The Halaf period witnessed the notable advance of the diversity of vessel shapes and decoration, two of the most outspoken halafian ceramic traits Autonomous University of Barcelona. An increased stylistic similarity can also be observed when comparing the main shapes and painted decorative motifs between the Euphrates (Tell Halula) and the Khabur areas (Chagar Bazar). Nevertheless, a characteristic ceramic trait that appears at the end of the period is an increase in bichrome and polychrome paintings and the appearance of white stipple decoration. This style of decorating pottery was much more common in the Khabur area, while in the Euphrates area it was practically absent.

In the Halaf period in Upper Mesopotamia, painted ceramics formed part of a new system of communication where vessels gained more relevance by creating and deciphering social narratives. Painted pottery gained an active and significant role in the way in which society functioned and the ways that social conventions were conveyed and reinforced. The geometric motifs had meanings that were probably understood over a wide area.

However, there are some specific motifs which are recurrent throughout the sequence of the Halaf period. These are motifs making reference to agriculture and livestock, which represented the main pillars of their subsistence economy. Throughout the Halaf period a large variety of stylized *bucrania* remained popular.

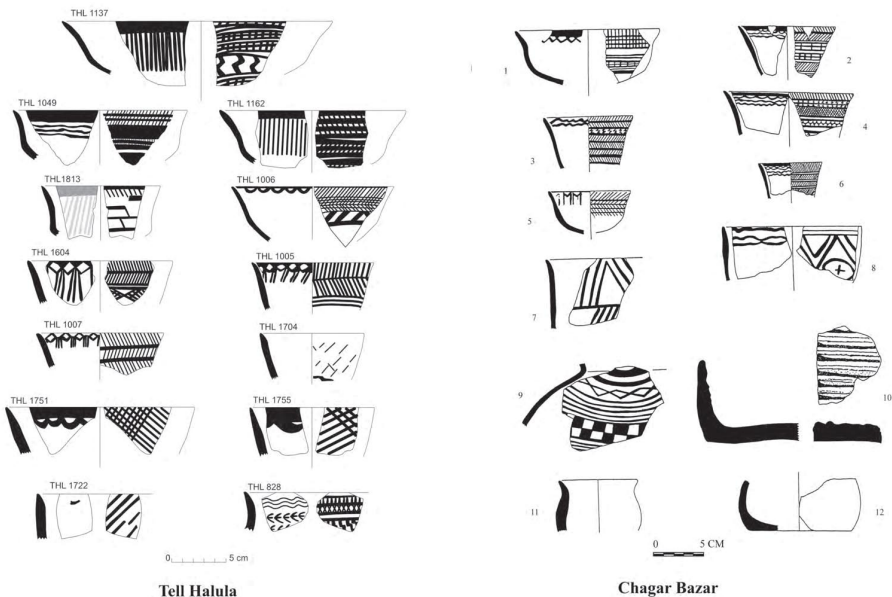


Figure 2.6. Typical shapes of the Proto-Halaf assemblage at Tell Halula and Tell Chagar Bazar.

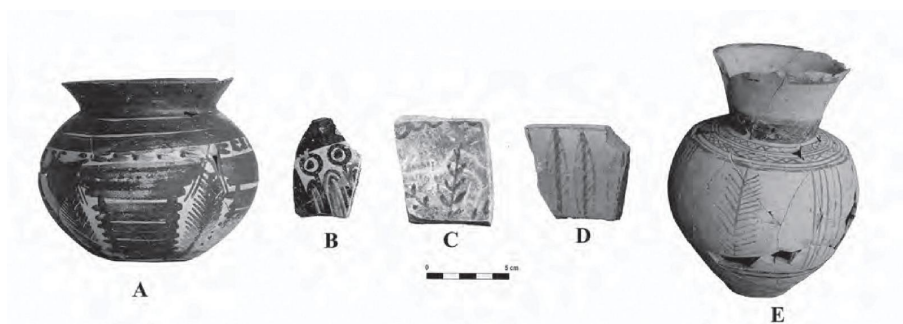


Figure 2.7. (Colour Pl. 3). Tell Chagar Bazar. Painted Fine Ware vessels from the Proto-Halaf to the Late Halaf stages showing references to agricultural activities.

Figure 2.7 (Colour Pl. 3) shows some of these naturalistic motifs, with examples coming from various stages of the Halaf period. In Figure 2.7, A, a Proto-Halaf short collared bowl shows a group of fences or enclosures to protect agricultural fields. Illustrations B, C and D show different images of agricultural fields and plants from the Early and Middle Halaf phases, and illustration E represents a large globular jar with high neck of the Late Halaf period showing again crops protected by fences. The range of meanings encoded in these representational scenes was undoubtedly complex. Nevertheless, in these specific examples the meaning would have been created by the interaction between agricultural practices, their economic benefits, and the consumption of food.

Chronologies of the two transitions

Chronologies are an essential tool to order the past and to provide frameworks within which social and economic changes can be discussed. The chronological framework for the Pottery Neolithic period in Upper Mesopotamia has traditionally been based on comparative studies of the technological, morphological and stylistic properties of the ceramic assemblages from excavated key sites. This led to the establishment of a succession of culture-historical entities that were initially ordered on the basis of relative chronologies. The introduction of radiocarbon dating subsequently allowed researchers to compare the existing schemes against absolute dating frameworks for the same sites, and also to add new sites within a developing absolute chronology. Radiocarbon dating has proved to be essential for establishing a unifying chronological basis across disciplines.

However, the available radiocarbon dates for the Late Neolithic are hampered by a series of distortions, as already discussed by several authors (Watkins and Campbell 1987). Many of the presently available samples are biased because of the poor and sometimes confusing contexts from which they were collected. Moreover, we have to take into account that many radiocarbon dates were made during the early stages of this new technology. Here we will only present a selection of recent radiocarbon available data for the seventh and sixth millennia cal BC for which we deem the context to be sufficiently reliable (Cruells 2006b; 2013; Cruells *et al.* 2017). We have presented the data in two separate diagrams to observe the initial dates for the two transitions discussed above (Figs 2.8 and 2.9).

The transition from eighth to seventh millennium cal BC has become a period particularly crucial in the Near East, as the simultaneous appearance of ceramic vessels in various parts of the region broadly coincided with this chronological transition. Contrary to earlier expectations, it has become apparent recently that in certain areas of the region ceramics appeared much earlier than we first imagined, at around 7000 cal BC (Akkermans *et al.* 2006; Molist *et al.* 2013; Campbell 2017).

In Figure 2.8 we can observe that most of the sites that have absolute chronologies for the adoption of pottery production are placed around the beginning of seventh millennium cal BC. Although several dates from Akarçay Tepe, Tell Aray 2 and Tell Halula present large intervals (between 120 and 530 years), they fit quite well in the first quarter of the seventh millennium cal BC and they are in accordance with the stratigraphic sequence obtained at each of these sites. Although the total number of radiocarbon data available for this

period is still very limited, the calibration of the current data set gives a tentative chronological framework that is quite convincing. Most of the radiocarbon dates for the Pottery Neolithic transition clearly fall in the first part of seventh millennium, between c. 7100 and 6900 cal BC (Molist *et al.* 2013; Campbell 2017).

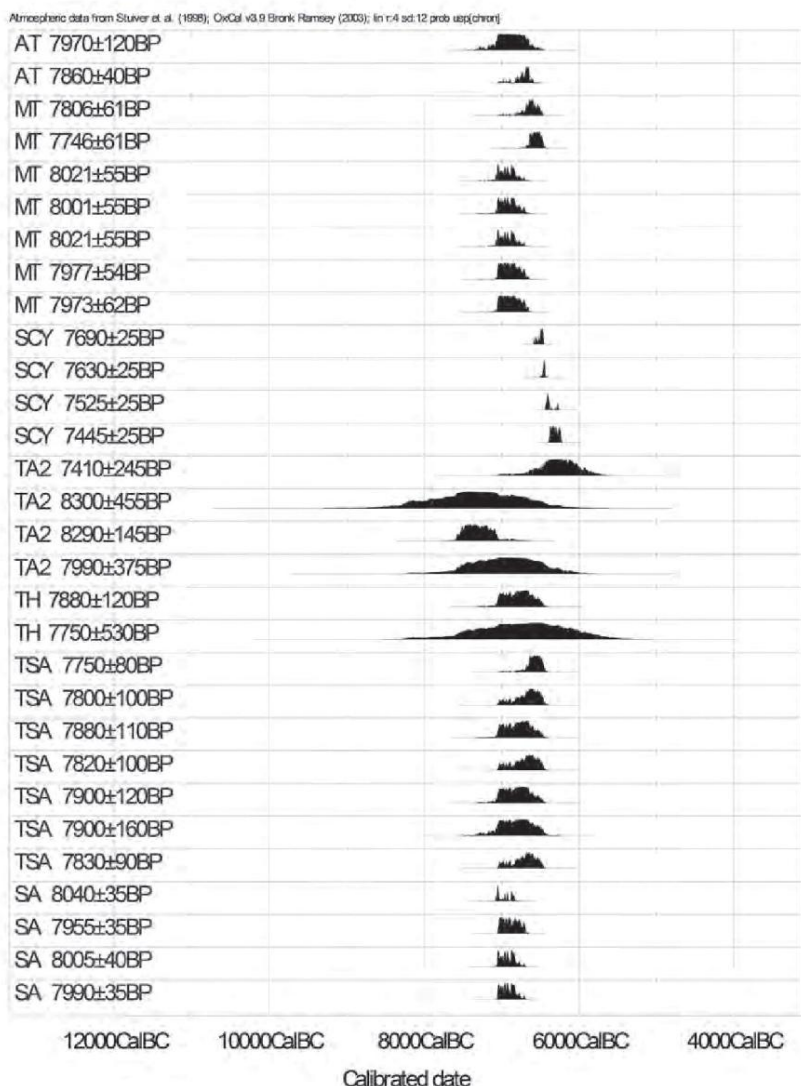


Figure 2.8. Radiocarbon dates from Akarçay Tepe, Mezraa Teleilat, Salat Cami Yanı, Tell Aray 2, Tell Halula, Tell Secker al Aheimar and Tell Sabi Abyad. These C14 dates all come from recently investigated sites that have the first pottery productions in a stratified sequence.

Chronological sub-divisions of the Halaf period have always prioritized the painted Fine Wares. In prehistory, however, if we are to understand processes of change and the dynamics between and

within communities, it is essential to insert absolute dates into our temporal frame. Watkins and Campbell (1987, 429) already suggested that “our basic understanding of the Halaf culture largely depends on our ability to fix the culture in a spatial and chronological framework”. It seems fair to say that in spite of many decades of research since the Halaf culture was first identified our ability to control its spatial-chronological dimensions is still seriously obstructed by the lack of a robust set of radiocarbon dates that covers the entire Halaf cultural sequence.

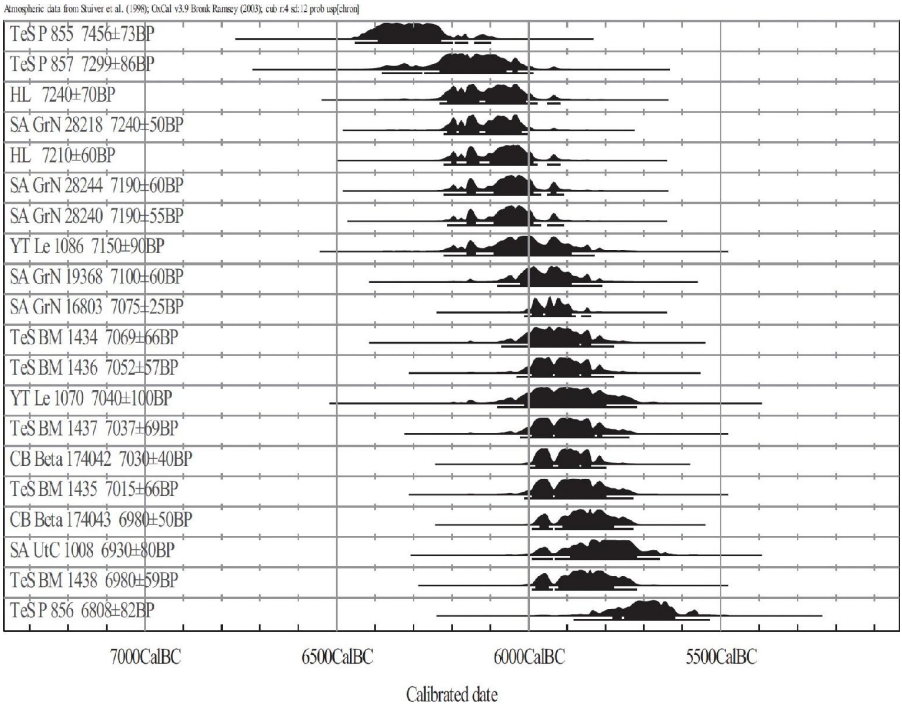


Figure 2.9. Radiocarbon plot of C14 dates of the Proto-Halaf related stage at Tell es Sawwan, Tell Halula, Tell Sabi Abyad, Yarim Tepe and Chagar Bazar.

Cultural Phase	PRE-HALAF	HALAF A		HALAF B		POST-HALAF	
	HASSUNA	Formative phase		Developed phase / Plain Halaf		UBAID	
		Halaf A-I	Halaf A-II	Halaf B-I		Halaf B-II	Post-Halaf
Cal. BC	6300	6100	5900	5850	5700	5550	5300
North Irak - Syria <i>Mallowan & Rose 1935</i>	---	---	---	Early Halaf	Middle Halaf	Late Halaf	
Khabur: Aqab <i>Davidson 1977</i>	---	---	---	Early Halaf	Middle Halaf	Late Halaf	HUT
Khabur: Chagar Bazar <i>Cruells 2006</i>	---	CB-I Proto-Halaf	CB-II Primitive Halaf	CB-III Intermediate Halaf		CB-IV Evolved Halaf	---
Northern Irak <i>Campbell 1992</i>	Hassuna I-II	Hassuna III	Halaf Ia Earliest Halaf	Halaf Ib Early Halaf	Halaf Iia Middle Halaf	Halaf Iib Late Halaf	Post-Halaf a/b
Euphrates: Halula <i>Cruells 2006</i>	Halula-III Late Pre-Halaf	Halula-IV Proto-Halaf	Halula V Primitive Halaf	Halula VI Intermediate Halaf		Halula-VII Evolved Halaf	Halula VIII Post-Halaf
Balikh: Sabi Abyad <i>Akkermans 1993</i>	Balikh IIC	Balikh IIIA	Balikh IIIB	Balikh IIIC		Balikh IIID	Balikh IVA

Figure 2.10. Recent Halaf culture-historical phasing and relative chronology for several Near Eastern areas and specific sites (North Irak-Syria: Mallowan and Rose 1935; Perkins 1949); Tell Aqab: Davidson 1977; Davidson and Watkins 1981; Chagar Bazar and Halula: Cruells 2006a; Northern Iraq: Campbell 1992; Tell Sabi Abyad: Akkermans 1993).

However, this situation has begun to change in the last two decades, as more and more archaeological teams have been obtaining new series of radiocarbon dates, partially filling the significant gap still existing (Akkermans 1991; Akkermans *et al.* 2006; Nieuwenhuyse *et al.* 2010; Molist *et al.* 2013). As a result, we now know much better where to place chronologically the “roots” of the halafian culture as well as the subsequent development of the Halaf horizon (Fig. 2.9). The newly defined Proto-Halaf stage emerges as a period of change, as a genuine transition, and not as a simplistically sharp chronological boundary. Figure 2.11, finally, presents an overall chronological outline of the Halaf sequence.

As already mentioned, Halaf chronologies have changed significantly over recent decades. If in the eighties of last century it was broadly accepted that the Halaf period lasted more than one thousand years, today it seems that the period did not last more than 800 years. The selected calibrated radiocarbon dates from various Halaf sites (Fig. 2.11) shows a much more restricted Halaf chronology than the traditional one, with a range of about 700/800 years covering the entire period. On the other hand, the recent fieldwork plus the new series of radiocarbon dates confirm that the Halaf period emerged earlier than previously thought. The Halaf period started at around 6200 cal BC in the so called Proto-Halaf stage (Fig. 2.11).

This new stage has been attested at several sites and it is generally thought to have started around 6200/6100 cal BC (see Fig. 2.9), although we emphasise that the available radiocarbon dates for this period are still very scarce. In the first calibration chart (Fig. 2.9) are included a few relatively old dates from Proto-Halaf and Hassuna sites

in Iraq, which suggest a range of 300 years for this period. If we take only the most recent radiocarbon dates into consideration it can be suggested that the Proto-Halaf period presents a chronological range of maximally some 200 years, between c. 6100–5900 cal BC.

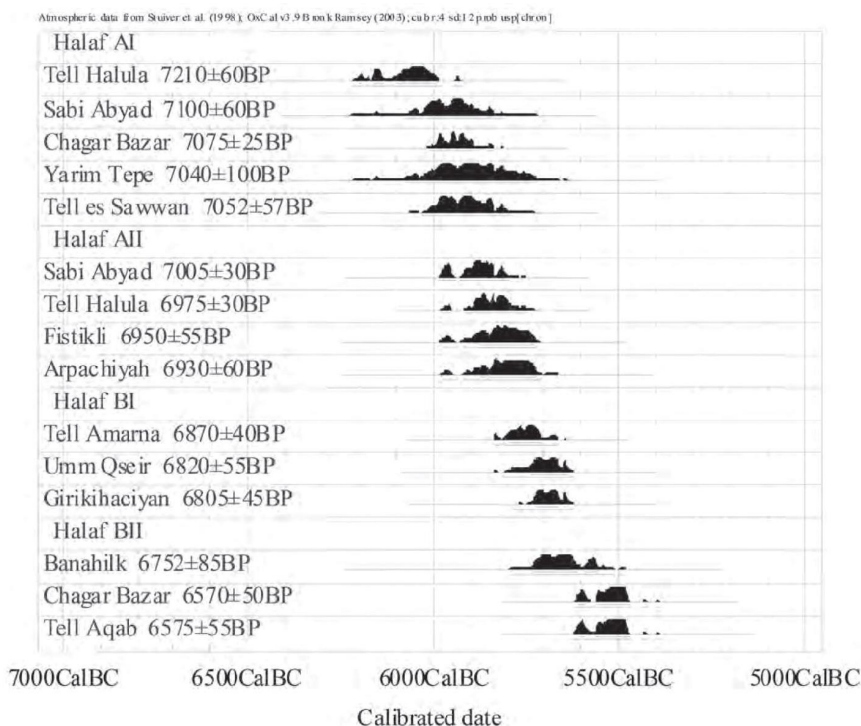


Figure 2.11. Radiocarbon plot of a selected series of C14 dates highlighting key phases of ceramic change according to the new periodization framework proposed.

To conclude this discussion of Halaf chronology, I wish to briefly remark on broader aspects of this subject. The periodization of the Halaf cultural sequence has been a *leitmotiv* for investigators in Near Eastern archaeology ever since Mallowan's proposal for a threefold chronological sequence following his excavations at the Tell Arpachiyah (Mallowan and Rose 1935). Mallowan divided the Halaf into Early, Middle and Late phases, a division that has lasted for at least 40 years and is still used by many researchers today. Mallowan's simplistic proposal has met with some heavy criticism; to make better sense of all the data collected, to define continuities and changes across time and space and ultimately to write history. Various authors have re-examined the data in detail and have presented new proposals (for instance Campbell 1992; 1998; Akkermans and Le Mièrre 1992; Akkermans 1993; 1996; Akkermans and Verhoeven 1995; Nieuwenhuyse 2000; 2007).

It is in line with this dynamic tradition of archaeological research that the Autonomous University of Barcelona project in the Near East (Seminari d'Arqueologia Prehistòrica del Pròxim Orient) invested strongly in constructing a new and coherent chrono-cultural periodization for the sites of Tell Halula, Tell Amarna and Chagar Bazar in Syria and Akarçay Tepe in Turkey. The project resulted in a new, trans-regional periodization (Cruells 2006a; 2009; 2013; Cruells and Molist 2006) that divides the Halaf period into two main stages (see [Fig. 2.10](#)). Our new framework incorporates the new Proto-Halaf stage as an independent phase, as it represents the emergence of the Halaf horizon. The two main stages are termed Halaf A, or Formative Stage, and Halaf B, or Developed Stage. Each one of these stages is then further subdivided into Proto-Halaf and an Early Halaf for the Formative Stage, and Intermediate and Late Halaf for the Developed Stage. Importantly, the Halaf B stage includes Mallowan's classic tripartite division of Early, Middle and Late Halaf.

Concluding remarks

Arguably one of the most relevant research lines implemented in the last twenty years has been the renewed investigation of the Upper Mesopotamian communities of the seventh and sixth millennia, after decades of prehistoric research focusing on the Pre-Pottery Neolithic period. Indeed, the accumulating discoveries in recent years have made it possible to develop innovative interpretative frameworks and to construct new chronological sequences for both of the transitions discussed in this paper: the first appearance of pottery productions as early as the beginning of seventh millennium cal BC and the origins of the Halaf “culture” at the end of the same millennium. As we have seen, this new wave of research has yielded fascinating and unexpected discoveries that have changed the ways in which we perceive the past, or how we order it chronologically and socially.

In this paper two specific, important, transitions in the Pottery Neolithic of the Near East have been discussed. As traditionally understood, the concept of a *transition* clearly involves a complete change of cultural and technological “packages”, even encompassing demographic ones when identified.

Concerning the first *transition*, at the beginning of the seventh millennium cal BC, we have seen that the introduction of pottery did not imply a complete “package” of cultural and technological changes. The changes that we can observe are not sudden but appeared gradually as new ceramic containers were introduced alongside pre-existing traditions of making containers. Apart from the limited

numbers of pottery containers, little if any socio-economic change has been observed so far that coincides with the introduction of pottery. A similar scenario of very gradual change applies to the second transition. At the end of the seventh millennium cal BC the pre-existing material culture traditions continued during the Proto-Halaf stage. The same architectural layout of structures, intricate storage practices, firing structures, and stone or bone tools continued without interruption, but we see also the addition of a new well-made painted fine ware fired in a more technologically advanced kilns.

It is important to highlight the great conceptual/formal similarities between the two “transitions” discussed here. It is also significant to note that pottery is involved as the main component of both episodes of cultural change, both of which do not seem to have implied marked differences in settlement patterns or socio-economic practices. In the first transition, the first ceramic vessels appeared rather suddenly in houses already used by the last PPNB phase. The picture for the Proto-Halaf transition is similar: houses constructed already in Pre-Halaf times were reused or rebuilt as the new Proto-Halaf painted Fine Wares appeared. In both cases the Pottery Neolithic stylistic horizons that we identify as archaeologists appeared gradually at numerous seventh millennium sites, and they also disappeared again gradually when local stylistic groups reasserted themselves. Further investigations should move away from the traditional emphasis on when or where the new pottery styles firstly appeared, and shift towards an understanding of the reasons why they were adopted.

From a socio-economic point of view it seems that in both transitions the population remained the same. Specifically the so called “Palestinian hiatus” (Hours and Copeland 1983; Cauvin 1985; Moore 1985) is not detectable, at least in the Euphrates Valley and the Upper Khabur regions. From a ceramic-technological perspective major technological advances have been observed in the second transition when highly advanced kilns (giving greater control in the firing process and in the formation of dark pigments) clearly represented a substantial improvement in pottery manufacture.

The new radiocarbon dating framework places the first emergence of pottery technology as early as the beginnings of the seventh millennium cal BC. The discovery of a series of early pottery production that was already mineral tempered and well fired radically contradicts earlier explanations that assumed that the heavy plant-tempered “potteries friables” represented the earliest pottery in the Near East. This first transition appears with similar characteristics and at about the same time at many other sites in the region. Similar to

the transition in the Proto-Halaf, this critical innovation does not seem to have emerged from a single core, but instead it appeared through a complex polygenic processes, in a short period of time. Considering that such major transitions are rare in prehistoric archaeology, few other prehistoric innovations would catalyse the extensive technological transformations that spurred the widespread expansion of the Pottery Neolithic across large parts of the ancient Near East. Scholars today have generally acknowledged that the highly visible painted ceramics represent the most widespread marker for the Pottery Neolithic identity.

Bibliography

- Akkermans, P. M. M. G. (1991) New radiocarbon dates for the later Neolithic of Northern Syria. *Paléorient* 17/1, 121–126.
- Akkermans, P. M. M. G. (1992) *Villages in the Steppe. Latter Neolithic Settlement and Subsistence in the Balikh Valley, Northern Syria*, International Monographs in Prehistory, Michigan, Ann Arbor.
- Akkermans, P. M. M. G. (ed.) (1996) *Tell Sabi Abyad: the late Neolithic Settlement. Report on the Excavations of the University of Amsterdam (1988) and the National Museum of Antiquities (1991–1993) in Syria*, 2 vols, Istanbul, Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- Akkermans, P. M. M. G. (2000) Old and new perspectives on the origins of the Halaf Culture. In O. Rouault and M. Wäfler (eds) *La Djéziré et l'Euphrate syriens de la Protohistoire à la fin du second millénaire av. J.-C.*, vol. VII, 43–54, Turnhout, Brepols.
- Akkermans, P. M. M. G. and Le Mièvre, M. L. (1993) The 1988 Excavations at Tell Sabi Abyad, a later Neolithic village in Northern Syria. *American Journal of Archaeology* 96, 1–22.
- Akkermans, P. M. M. G. and Schwartz, G. M. (2003) *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (ca. 16,000–300 BC)*, Cambridge, Cambridge University Press.
- Akkermans, P. M. M. G. and Verhoeven, M. (1995) An image of complexity: the burnt village at Late Neolithic Sabi Abyad, Syria. *American Journal of Archaeology* 99/1, 5–32.
- Akkermans, P. M. M. G., Cappers, R., Cavallo, C., Nieuwenhuys, O., Nilham, B. and Otte, I. N. (2006) Investigating the Early Pottery Neolithic of Northern Syria: new evidence from Tell Sabi Abyad. *American Journal of Archaeology* 110/1, 123–156.
- Arimura, M., Balkan-Atli, N., Borrell, F., Cruells, W., Duru, G., Erim-Özdoğan, A., Ibañez, J., Maede, O., Miyake, Y., Molist, M. and Özbasaran, M. (2000) A new Neolithic settlement in the Urfa Region: Akarçay Tepe, 1999. *Anatolia Antiqua* VIII, 227–255.
- Arimura, M., Balkan-Atli, N., Borrell, F., Cruells, W., Duru, G., Erim-Özdoğan, A., Ibañez, J., Maede, O., Miyake, Y., Molist, M. and Özbasaran, M. (2001) Akarçay Tepe excavations, 1999. In N. Tuna, J. Öztürk and J. Velibeyoglu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs: Activities in 1999*, 338–357, Ankara, (TAÇDAM).
- Bader, N. and Le Mièvre, M. (2013) From Pre-Pottery Neolithic to Pottery Neolithic in the Sinjar. In O. Nieuwenhuys, R. Bernbeck, J. Rogasch and P. M. M. G. Akkermans, (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 513– 520, Turnhout, Brepols.
- Bernbeck, R. (1997) *Theorien in der Archäologie*, UTB für Wissenschaft 1964, Tübingen/Basel, Francke.
- Bernbeck, R. (2008) Taming time and timing the tamed. In J. M. Cordoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (3–8 April 2006)*, Vol. 3, 709–728, Madrid, UAM Ediciones.
- Bernbeck, R. and Nieuwenhuys, O. (2013) Established paradigms, current disputes and

- emerging themes: The state of research on the Late Neolithic in Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 17–37, Turnhout, Brepols.
- Bogoslavskaja, N. F. (1972) On the problem of the origin of the Halaf Culture. *Sovetskaya Archeologia* 2, 3–16.
- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavation on the Plain of Antioch. Vol. 1: the earlier assemblages: Phases a-J*, Oriental Institute Publications 61, Chicago, University of Chicago Press.
- Breniquet, C. (1987) *Nouvelle hypothèse sur la disparition de la culture de Halaf*, Prèhistoire de la Mesopotamie. Paris, CNRS.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, Unpublished PhD. Dissertation, University of Edinburgh.
- Campbell, S. (1998) Problems of definition: the origins of the Halaf in North Iraq. In M. Lebeau (ed.) *Landscape, Archaeology, Settlement*, Vol. IV, 1, 39–52, Subartu, Brepols.
- Campbell, S. (1999) Archaeological constructs and past reality on the upper Euphrates. In G. del Olmo and J. L. Montero (eds) *Archaeology of the Upper Syrian Euphrates. The Tishrin Dam Area*, 573–583, AUSA, Sabadell.
- Campbell, S. (2017) Absolute dating and the early pottery of southwest Asia. In A. Tsuneki, O. Nieuwenhuyse and S. Campbell (eds) *The Emergence of Pottery in West Asia*, 129–150, Oxford, Oxbow Books.
- Caneva, I. (1999) Early farmers on the Cilician coast: Yumuktepe in the seventh millennium BC. In M. Özdoğan and N. Başgelen (eds) *Neolithic in Turkey. The Cradle of Civilization. New Discoveries*, 105–114, İstanbul, Arkeoloji ve Sanat Yayınları.
- Cauvin, J. (1985) Les cultures villageoises et civilisations préurbaines d'Asie antérieure. In J. Lichardus and M. Licharduslitten (eds) *La protohistoire de l'Europe. Le Néolithique et le Chalcolithique*, 156–206, Paris, Presses Universitaires de France.
- Childe, V. G. (1929) *The Danube in Prehistory*, Oxford, Oxford University Press.
- Childe, V. G. (1952) *New Light on the Most Ancient East*, London, Routledge and Kegan Paul.
- Contenson, H. de (1977) Le Néolithique de Ras Shamra V, d'après les campagnes 1972–1976 dans le sondage SH. *Syria* 54/1–2, 1–23.
- Contenson, H. de (1992) *Préhistoire de Ras Shamra-Ougarit VIII*, Paris, ERC.
- Contenson, H. de (2000) *RAMAD. Site Néolithique en Damascène (Syrie) aux VIII et VII Millénaires avant l'ère chrétienne*, Beyrouth, BAH 157 IFAP.
- Coqueugniot, E. (2000) Dja'de (Syrie), un village à la veille de la domestication (seconde moitié du 9^e millénaire av. J.C.). In J. Guilaine (ed.) *Les Premiers Paysans du Monde, Naissance des Agriculures*, 69–79, Paris, Errance.
- Coqueugniot, E. (2009) *Dja'de (Syrie), Un site Néolithique au Patrimoine Exceptionnel: les plus anciennes peintures murales connues*, Lyon, Archéorient.
- Cruells, W. (2006a) Chagar Bazar préhistorique. Esquisse de la séquence d'évolution et la périodisation. In Ö. Tunca and A. M. Baghdo (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 121–142, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W. (2006b) Chantier E et F. Les Datations C14. In Ö. Tunca and A. M. Baghdo (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 117–119, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W. (2008) The Proto-Halaf: origins, definition, regional framework and chronology. In J. M. Cordoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (3–8 april 2006)*, Vol. III, 671–689, Madrid, Universidad Autónoma de Madrid.
- Cruells, W. (2009) Nouvelles Données Sur Les Origines Et Le Développement De La Céramique Halaf En Syrie. In L. Astruc, A. Gaulon and L. Salanova (eds) *Méthodes D'approche Des Premières Productions Céramiques: Étude De Cas Dans Les Balkans Et Au Levant. Table-Ronde De La Maison De L'archéologie Et De L'ethnologie (Nanterre-France)*, 28 Février 2006, Vol. 12, 93–103, Rahden/Westf, Verlag Marie Leidorf.
- Cruells, W. (2013) La cerámica Halaf en Tell Halula (VII y VI milenios cal BC). Orígenes y desarrollo. In M. Molist (ed.) *Tell Halula: un poblado de los primeros agricultores en el valle del Éufrates, Siria*, Vol. II, 59–211, Madrid, Ministerio de Educación, Cultura y Deporte.
- Cruells, W. and Molist, M. (2006) Chagar Bazar au sein de la préhistoire du Bassin Du Khabur.

- In Ö. Tunca and A. M. Baghdad (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 143–155, Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W. and Nieuwenhuyse, O. (2004) The Proto-Halaf Period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Cruells, W., Faura, J. M. and Molist, M. (2017) Akarçay Tepe and Tell Halula in the frame of the first ceramic productions in the Near East. In A. Tsuneki, O. Nieuwenhuyse and S. Campbell (eds) *The Emergence of Pottery in West Asia*, 27–42, Oxford, Oxbow Books.
- Cruells, W., Gómez, A., Bousa, M., Guerrero, E., Tornero, C., Saña, M., Molist, M., Buxó, R., Baghdad, A. e.-M. and Tunca, Ö. (2013) Chagar Bazar in Northeastern Syria: Recent Work. In O. Nieuwenhuyse, R. Bernbeck, J. Rogasch and P. M. M. G. Akkermans (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 467–477, Turnhout, Brepols.
- Davidson, T. E. (1977) *Regional Variation within the Halaf Ceramic Tradition*. PhD. thesis, Edinburgh, University of Edinburgh.
- Dietler, M. (1996) Feasts and commensal politics in the political economy: food, power, and status in prehistoric Europe. In P. Wiessner and W. Schiefelhövel (eds) *Food and the Status Quest: An Interdisciplinary Perspective*, 87–125. Oxford, Berghahn.
- Faura, J. M. and Le Mièrre, M. (1999) La céramique néolithique du haut Euphrate Syrien. In G. Del Olmo Lete and J. L. MonteroFenolós (eds) *Archaeology of the Upper Syrian Euphrates. The Tishrin dam area. Proceedings of the International Symposium Held at Barcelona, January 28th–30th, 1998*, 281–198, Barcelona, Editorial AUSA.
- Garkinkel, Y. (2009) The transition from Neolithic to Chalcolithic in the southern Levant. The material culture sequence. In J. J. Shea and D. E. Lieberman (eds) *Transitions in Prehistory: Papers in Honor of Ofer Bar-Yosef*, 325–333, Cambridge (MA), Harvard University.
- Garstang, J. (1908) Excavations at Sakje-Geuzi, in North Syria: preliminary report for 1908. *Annals of Archaeology and Anthropology* 1, 97–117.
- González, M. (2009) La extracción de las pinturas murales neolíticas descubiertas en Tell Dja'de el Mughara (Siria). In A. Castro Fernández (ed.) *Revista Patrimonio Cultural De España*, 246–255, Madrid, Ministerio de Cultura.
- Green, W. A. (1992) Periodization in European and World history. *Journal of World History* 3/1, 13–53.
- Green, W. A. (1995) Periodizing World history. *History and Theory* 34, 99–111.
- Grinin, L. E. (2007) Production revolutions and periodization of history: a comparative and theoretic-mathematical approach. *Social Evolution and History* 6/2, 75–120.
- Hole, F. (2000) Is size important? Function and hierarchy in Neolithic settlements. In I. Kuijt (ed.) *Life in Neolithic Farming Communities: social organization, identity, and differentiation*, 191–209, New York, Kluwer Academic Publishers.
- Hours, F. and Copeland, L. (1983) Les rapports entre l'Anatolie et la Syrie du Nord à l'époque des premières communautés villageoises de bergers et de paysans, 7600–5000 B.C. In T. C. Young Jr., P. Smith and P. Mortensen (eds) *The Hilly Flanks and Beyond. Essays on the Prehistory of Southwestern Asia presented to R. Braidwood*, 75–90, Studies in Ancient Oriental Civilizations 36, Chicago, University of Chicago Press.
- Jones, M. (2007) *Feasts: why humans share food*, Oxford, Oxford University Press.
- Karul, N., Ayhan, A. and Özdoğan, M. (2002) Excavations in Mezraa Teleilat 2000. In N. Tuna and J. Velibeyoğlu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs: Activities in 2000*, Ankara, Middle East Technical University (METU), Centre for Research and Assessment of the Historic Environment.
- Karul, N., Ayhan, A. and Özdoğan, M. (2004) 2001 excavations at Mezraa Teleilat/2001 Yılı Mezraa Teleilat Kazıları. In N. Tuna, J. Öztürk and J. Velibeyoğlu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs. Activities in 2001/Ilisu ve Karkamış Baraj Gölleri Altında Kalacak Arkeolojik ve Kültür Varlıklarını Kurtarma Projesi 2001 Yılı Çalışmaları*, 57–106, Ankara, Orta Doğu Teknik Üniversitesi (Middle East Technical University) and TAÇDAM.
- Kossinna, G. (1911) *Die Herkunft der Germanen. Zur Methode der Siedlungsarchäologie*, Würzburg, Mannus-Bibliothek 6.
- Le Mièrre, M. (1986) *Les premières céramiques du Moyen-Euphrate*. Thèse de Doctorat, Université Lumière-Lyon II.
- Le Mièrre, M. and Picon, M. (1998) Les débuts de la céramique au Proche-Orient. *Paléorient*

- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.
- Manning, P. (1996) The problem of interaction of World history. *American Historical Review* 101/3, 771–782.
- Mellaart, J. (1962) Excavations at Çatal Hüyük. First preliminary report, 1961. *Anatolian Studies* 12, 41–65.
- Mellaart, J. (1978) *Earliest Civilisations of the Near East*, London, Thames and Hudson.
- Miyake, Y. (2005) Archaeological survey at Salat Cami Yanı. A Pottery Neolithic site in the Tigris Valley, southeast Turkey. *Anatolica* 31, 1–17.
- Miyake, Y. (2011) Salat Cami Yanı. A Pottery Neolithic site in the Tigris Valley. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey. New Excavations & New Research. The Tigris Basin*, 129–149, Istanbul, Archaeology and Art Publications.
- Molist, M. (1998) Des représentations humaines peintes au IX Millénaire BP sur le site de Tell Halula (Vallée de l'Euphrate, Syrie). *Paléorient* 24/1, 81–87.
- Molist, M. (1999) Les énigmatiques figures féminines de Tell Halula. In M. Fortin (ed.) *Syrie. Terre de Civilisations*, 238, Redt, Musée de la Civilisation.
- Molist, M. (ed.) (2013) *Tell Halula: un poblado de los primeros agricultores en el valle del Éufrates, Siria*, 2 vols, Madrid, Ministerio de Educación, Cultura y Deporte.
- Molist, M., Vicente, O. and Barceló, J. A. (2013) La serie de dataciones absolutas C14 del yacimiento de Tell Halula (Valle del Eufartes). In M. Molist (ed.) *Tell Halula: un poblado de los primeros agricultores en el valle del Éufrates, Siria*, Vol. I, 87–93, Madrid, Ministerio de Educación, Cultura y Deporte.
- Moore, A. M. T. (1985) The development of Neolithic societies in the Near East. In F. Wendorf and A. Close (eds) *Advances in World Archaeology*, Vol. 4, 1–69, New York, London, Sydney, Academic Press, London.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur Headwaters. In B. Lyonnet (ed.) *Prospection archéologique du Haut-Khabur Occidental (Syrie du N.E.)*, Vol. I, 151–260. Beyrouth, IFAPO.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery. The Rise of Late Neolithic Ceramic Styles on the Syrian and northern Mesopotamian Plains*, PALMA 3, Turnhout, Brepols.
- Nieuwenhuyse, O. P. (2009) The Late Neolithic ceramics from Shir. A first assessment, 310–356, Berlin, Deutsches Archäologisches Institut, Orient-Abteilung.
- Nieuwenhuyse, O. P., Akkermans, P. M. M. G. and Plicht, J. van der (2010) Not so coarse, nor always plain – the earliest pottery of Syria. *Antiquity* 84, 71–85.
- Nishiaki, Y. and Le Mièr, M. (2005) The oldest Pottery Neolithic of Upper Mesopotamia: new evidence from Tell Seker Al-Aheimar, The Khabur, Northeast Syria. *Paléorient* 31/2, 55–68.
- Perkins, A. (1949) *The Comparative Archaeology of Early Mesopotamia* 25, Chicago, Oriental Institute, University of Chicago Press.
- Roux, V., Courty, M. A., Dollfus, G. and Lovell, J. L. (2011) A techno-petrographic approach for defining cultural phases and communities: explaining the variability of Abu Hamid (Jordan Valley) early 5th millennium cal BC ceramic assemblage. In J. L. Lovell and Y. M. Rowan (eds) *Culture, Chronology and the Chalcolithic. Theory and Transition*, 114–132, Oxford, Oxbow Books.
- Simons, A. H., Boulton, A., Butler, C. R., Kafafi, Z. and Rollefson, G. O. (1990) A plastered human skull from Neolithic 'Ain Ghazal, Jordan. *Journal of Field Archaeology* 17, 107–110.
- Simmons, N. H. (2000) Villages on the edge: regional settlement change and the end of the Levantine Pre-Pottery Neolithic. In I. Kuijt (ed.) *Life in Neolithic Farming Communities: social organization, identity, and differentiation*, 211–30, New York, Springer.
- Shanks, M. and Tilley, C. (1987) *Social Theory and Archaeology*, Cambridge, Polity Press.
- Stordeur, D. (2003) Des crânes surmodelés à Tell Aswad de Damascène (PPNB – Syrie). *Paléorient* 29/2, 109–115.
- Stordeur, D. (2006) L'Aire funéraire de Tell Aswad (PPNB). *Syria* 83, 39–62.
- Stordeur, D. and Khawam, R. (2007) Les crânes surmodelés de Tell Aswad (PPNB, Syrie). Premier regard sur l'ensemble, premières réflexions. *Syria* 84, 5–32.
- Trigger, B. G. (2006) *A History of Archaeological Thought*, Cambridge, Cambridge University Press.

- Tsuneki, A. (2017) The significance of research on the emergence of pottery in West Asia. In A. Tsuneki, O. Nieuwenhuys and S. Campbell (eds) *The Emergence of Pottery in West Asia*, 1–8, Oxford, Oxbow Books.
- Tsuneki, A. and Miyake, Y. (1996) The earliest pottery sequence of the Levant: New data from Tell El-Kerkh 2, Northern Syria. *Paléorient* 22/1, 109–123.
- Verhoeven, M. (2002) Transformation of Society: the changing role of ritual and symbolism in the PPNB and the PN in the Levant, Syria and South-East Anatolia. *Paléorient* 28/1, 5–13.
- von Oppenheim, M. F. (1931) *Tell Halaf: A New Culture in Oldest Mesopotamia*, London, Putnam's.
- von Oppenheim, M. F. (1943) *Tell Halaf. Vol 1: Die Prähistorischen Funde: Bearbeitet Von Hubert Schmidt*. Berlin, de Gruyter.
- Watkins, T. and Campbell, S. (1987) The chronology of the Halaf Culture. In O. Aurenche, J. Evin and F. Hours (eds) *Chronologies in the Near East*, 427–466, International Symposium Lyon (France), British Archaeological Report S379, Oxford, British Archaeological Reports/C.N.R.S.
- Watson, P. J. (1983) The Halafian Culture: a review and synthesis. In T. C. Young, P. E. L. Smith and P. Mortensen (eds) *The Hilly Flanks and Beyond: essays on the archaeology of Southwest Asia*, Oriental Institute Publications 36, 231–249, Chicago, University of Chicago Press.
- Watson, P. J. and LeBlanc, S. A. (1973) Excavation and analysis of Halafian materials from southeastern Turkey: the Halafian Period re-examined. In *72nd Annual Meeting of the American Anthropological Association. Nov. 28–Dec. 2 1973*, New Orleans, American Anthropological Association.
- Wells, P. S. (1998) Identity and material culture in the later prehistory of Central Europe. *Journal of Archaeological Research* 6/3, 239–298.

Dark and light colour in Early Near Eastern pottery: from technique to decoration

Marie Le Mière, Mihriban Özbaşaran and Maurice Picon

Abstract

As the most striking attribute of pottery containers, surface colour is often used to differentiate ceramic categories, the degree of darkness or lightness sometimes even considered sufficient to distinguish entire ceramic regions. The properties that cause such colour differences remain insufficiently discussed, however. We discuss several issues pertaining to surface dark and light colour in Neolithic ceramics, including the typical dark colours of the earliest pottery, the relation between surface colour and decorative techniques, as well as the deliberate employment of a dark colour as decoration. These phenomena will be investigated in terms of raw materials and technology, as well as tradition and significance.

Introduction

Such terms as “Dark-Faced Burnished Ware” (Braidwood and Braidwood 1960, 49), “Grey-Black Ware” (Akkermans 1989, 82), “Black Series” (Faura and Le Mière 1999, 283) and “Early Dark Ware” (Nishiaki and Le Mière 2005, 61), have become widely accepted to define different groups of Near Eastern Neolithic pottery. These terms reflect the scholarly importance given to the darker colours. Light colours are far less often present in the terms used. The intention of this paper is to discuss the significance of the light and the dark colours and stress the importance of this distinction, particularly in terms of decoration.

Early origins of dark-coloured containers?

Dark surface colours already appear in the earliest pottery, referred to as “Black Series” and “Early Dark Ware”, as mentioned above. The earliest pottery from the Jezirah and the northern Levant (Syria–Cilicia) (Fig. 3.1), dating back to the beginning of the seventh millennium BC, is very homogeneous. It is characterized mainly by an exclusively mineral temper but also by its dark colour (Le Mièrè 2009). This last characteristic directed our attention to the much earlier Pre-Pottery Neolithic stone vessels found in Eastern Anatolia and northern Syria, most of which were made in chlorite, which is dark in colour (Fig. 3.2/Colour Pl. 4) (Özkaya and Coşkun 2011, 95).

Not only are these containers dark in colour but they have other features in common with the earliest pottery. The stone vessels were polished, resulting in a shiny surface, which can also be seen on burnished examples of the earliest pottery (Le Mièrè 2009). The shapes of the Pre-Pottery Neolithic stone vessels, too, which are mostly closed or vertical, are very comparable to the shapes of the earliest pottery (Fig. 3.3).

A possible relation between the PPNA chlorite vessels and the earliest pottery is also suggested by some recently published data from Demirköy, a Pre-Pottery Neolithic A (PPNA) site in the upper Tigris valley. M. Rosenberg mentions a find of “three small fragments of a poorly fired crude clay pot” (Rosenberg 2011, 82). As the author observes, such finds are not rare at PPNA sites and some of them are even reported as possibly having been slightly fired. At other Pre-Pottery Neolithic sites this firing of clay containers is generally considered to be accidental because of the context. In the case of Demirköy, the possibility of intentional firing is suggested by Rosenberg because one of the three sherds, a rim sherd, presents a hole just below the rim, which could be an imitation of the suspension holes common on stone vessels (Fig. 3.4). Rosenberg hypothesizes that this small clay pot might have been made in place of a stone one and fired, although only slightly, to strengthen the suspension hole.

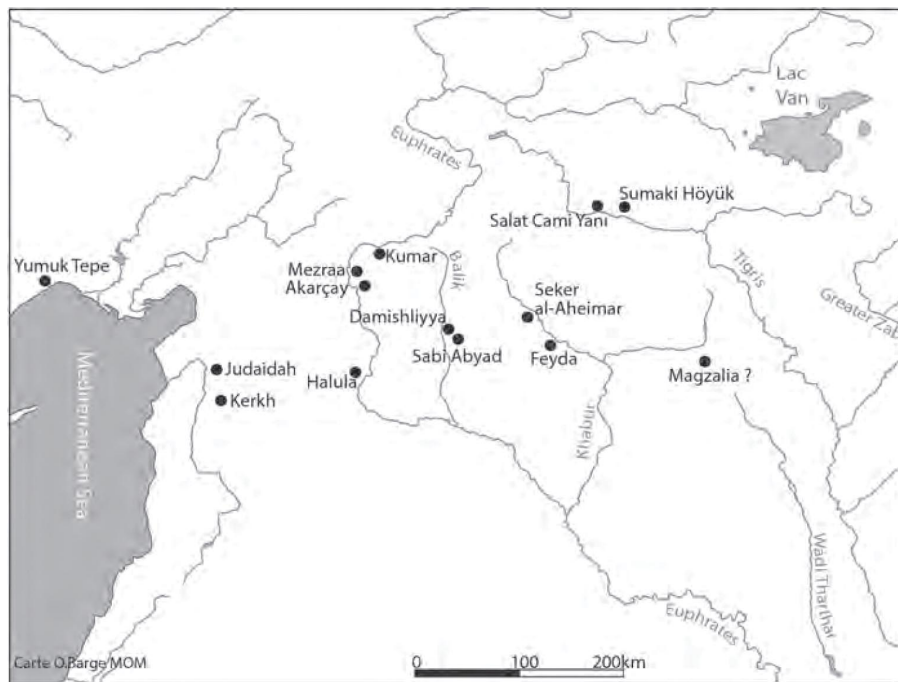


Figure 3.1. Map of Upper Mesopotamia showing the locations of the earliest Pottery Neolithic sites in the Jezirah and the Northern Levant (Syria – Cilicia).



Figure 3.2. (Colour Pl. 4). Comparison of dark coloured chlorite stone vessels (1) and the earliest pottery (2–4). 1: Körtik Tepe (after Özkaya and Coşkun 2011, fig. 18). 2: Tell Seker al-Aheimar. 3: Tell Damishliya. 4: Akarçay Tepe (after Özbekarar and Molist 2007, vol. 2, 187, fig. 29).

Notwithstanding such resemblances, however, it should be emphasized that chlorite vessels are typical of the PPNA period, preceding by c. 3000 years the earliest appearance of pottery. They are extremely rare, though not unknown, in the following PPNB period; one example is known from Çayönü (Erim-Özdoğan 2011, fig. 68). Thus, there is a big chronological gap between these productions. This prevents further consideration of the suggested relation between them.

The technology of pottery colour

To interpret the dark colour of the earliest pottery it is necessary to understand the technological reasons behind the dark colour of pottery in general. The factors involved in the process of colouring

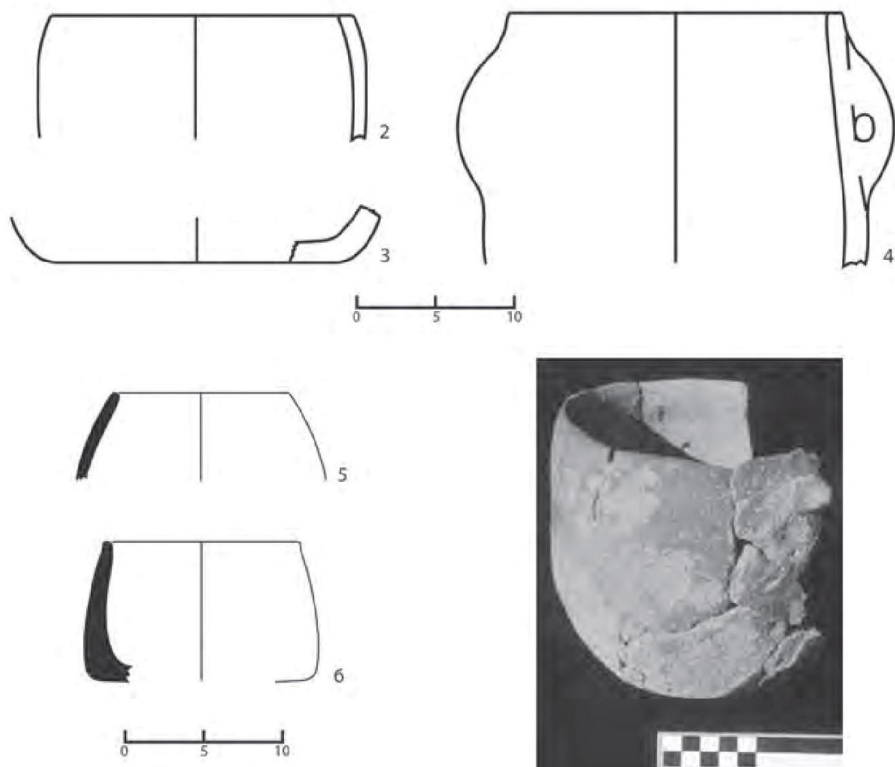
pottery are multiple and they interact in complex ways; therefore, the presentation of the technology of pottery colour that follows is highly simplified and only provides the main elements. In addition to several chemical components involved in pottery colouring processes – carbon, iron oxide and calcium – the firing/post-firing atmosphere, the firing temperature, the granulometry and the porosity all play important roles.

The chemical components

Carbon produces a black colour. It comes primarily from the burning of the fuel. This produces complex organic vapours which then decompose in contact with the ceramic paste, with the result of carbon being deposited in the paste. This process starts already at a low temperature, but when the temperature exceeds 850°C a reducing atmosphere becomes necessary for the carbon to deposit. Carbon deposition is facilitated by high porosity of the paste.



Figure 3.3. Comparison of the shapes of the chlorite stone vessels (1) and the earliest pottery (2–7). 1: Körtik Tepe (after Özkaya and Coşkun 2008, fig. 16). 2–4: Tell Seker al-Aheimar. 5–6: Kumar Tepe. 7: Tell Halula (after Cruells et al. 2009, fig. 4).



Iron is the other main colouring element. Iron produces a diversity of dark colours ranging from red to black. To provide colour, iron must be present in the form of iron oxide. Clays can contain iron in various forms. Ferruginous clays contain iron in the form of iron oxide as well as in the form of ferruginous compounds (iron silicates), sometimes uncoloured, which may transform partly to oxide when fired at a low temperature. Non-ferruginous clays contain no iron oxide, but they do have these ferruginous compounds, which can transform to oxide. The variable colour effect from red to black produced by iron depends on the atmosphere of firing/post-firing.

In contrast, calcium is not a colouring element but a decolourant. When the temperature rises sufficiently, calcium prevents the formation of iron oxides by combining with iron to form complex silicates. The higher the percentage of calcium, the higher the percentage of iron transformed into silicate, in which form it is effectively prevented from playing the role of a colourant. Iron and calcium silicates carry very little colour. Calcite must be fired at a high enough temperature to decompose to lime in order to produce silicates; it decomposes more easily when it is less crystallised. The size of the calcite grains, too, is very important in this process because

this reaction occurs much more easily with small grains. The temperature at which calcite decomposition starts is about 800°C but it can be lower, depending on the clay matrix.



Figure 3.4. Suspension holes on clay sherds from Demir Köy (left) and on a chlorite stone vessel from Körtek Tepe (right). 1: after Rosenberg 2011, [fig. 4.2](#): after Özkaya and Coşkun 2011, [fig. 19](#).

The firing/post-firing atmosphere

The role of the firing/post-firing atmosphere has already been mentioned in relation to carbon deposition in relation to firing temperatures and for the colour produced by iron oxides. Whether oxidizing or reducing, the post-firing atmosphere can be especially determinant in terms of colour whatever the firing atmosphere. Specific post-firing conditions can be achieved either accidentally or intentionally. We will consider here the reducing atmosphere when it is intentional: an intentionally reducing atmosphere is obtained when the firing installation (pile, pit or kiln) is carefully closed or when organic material is placed directly on the still hot pottery.

A reducing atmosphere can occur at temperatures either low or high but if a dark colour is the intended result it will be more efficient at low temperatures because the porosity of the pottery is higher in this case. A high porosity reinforces both reducing and oxidizing effects. For a particular fabric, a reducing atmosphere will produce a black colour at low temperatures and light grey colour at high temperatures.

Firing temperature

The firing temperature is, as mentioned above, a key factor in the

colouring process: its effects arise from its interactions with chemical elements as well as with the firing atmosphere – in the degree of carbon deposition, in the decomposition of calcite, which may prevent the colouring action of iron, and also in the final colour produced by a reducing atmosphere. Granulometry is an important factor as well: when it is fine, reactions can occur at lower temperatures.

The dark colour of the earliest pottery

The main question, then, is to find out whether the dark colour of the pottery vessel was intentional or accidental. There are two possible explanations for this dark colouring: either the firing temperature was not high enough for the carbon deposition to cease and for the decolouration effect of calcium to occur, or the pottery was darkened on purpose. In the case of the earliest pottery discussed in this paper, the latter possibility is not very likely because it does not present the characteristics typical for pottery darkened by a reducing post-firing atmosphere, that is, a surface always as dark as the core if not darker.

As to the first option, a low firing temperature might be attributed to the difficulty of reaching a high temperature at this incipient stage of pottery technology. However, we know that firing over 800°C was used for making lime a few millennia before the appearance of pottery (Kingery *et al.* 1988). Thus this low firing temperature cannot be explained by such a technical limitation.

In fact, low firing temperatures for the earliest pottery may well have been intentional if the type of temper used is taken into consideration. Crushed calcite or volcanic carbonates are found in some of the pottery fabrics at several sites; these would not have resisted temperatures over $\pm 800^{\circ}\text{C}$. Therefore, firing at low temperatures could have been intentional but perhaps not to produce dark pottery.

Mastering dark and light colours?

The early painted pottery

Although the possibility of intentional production of dark-coloured ceramics is not yet unequivocal, it should not be excluded. Data concerning early painted pottery support this possibility. The earliest pottery as a whole is very rarely decorated, and decoration seems not to appear at the very beginning of pottery production. Nevertheless, there are some occurrences of painting on early mineral-tempered wares at several sites (Fig. 3.5/Colour Pl. 5).

What is remarkable with these painted vessels is that unlike the

general dark colours of the ware, the painted sherds are always light in colour, both in the paste as well as at the surface. Allowing the painted decoration to be much more visible, this which suggests intention and ability. In fact this early painted pottery is not tempered with crushed calcite or volcanic carbonates: all the examples known so far are basalt-tempered and as such could have been fired at temperatures over 800°C.

The light colour indicates that the decolouring effect of calcium has taken place, which, as mentioned above, occurs at temperatures over 800°C. If one adds our observation that in studied samples of the painted pottery the percentage of calcium in the clay composition is higher than the average for this ware, a clear intention to produce a light colour could be inferred. The evidence suggests that producing dark or light colours was a skill mastered very early on in the development of pottery technology. This stands as an early example of a purposefully achieved relation between dark/light colour and decoration, different cases of which will appear in later developments of Neolithic pottery.

Dark/light colour and the decoration of later Neolithic pottery

One case is the decoration of Dark-Faced Burnished Ware. This ware is found mostly at Neolithic sites in Northern Levant, although this category also occurs at sites across the Jezirah, where very probably it represents an import (Le Mière and Picon 1987; Bader *et al.* 1994). Dark-Faced Burnished Ware was made out of ophiolitic clays (Le Mière and Picon 1987), generally containing low percentages of calcium and high percentages of iron. It is therefore dark in colour, from dark red to black. This ware was most commonly decorated by impressions and incisions (Braidwood and Braidwood 1960, 51, fig. 26; Tsuneki and Miyake 1996, fig. 8, 10). However, painted Dark-Faced Burnished Ware does exist as well, being the so-called Washed Impressed Ware from the Amuq (Braidwood and Braidwood 1960, 52). But painted decoration on Dark-Faced Burnished Ware is not frequent and it is also very specific: it consists of very large bands, red in colour and strongly burnished (Fig. 3.6/Colour Pl. 6). This is clearly different from the fine and more elaborate painted decoration found at the same time on other pottery wares that were light in colour (Braidwood and Braidwood 1960, fig. 55, pl. 80, no. 2), probably because it would not have been visible if painted on a dark surface. In this case the dark or light colour of the pottery seems to have determined the type of decoration selected, showing adaptation rather

than technical mastery on the part of the potters.

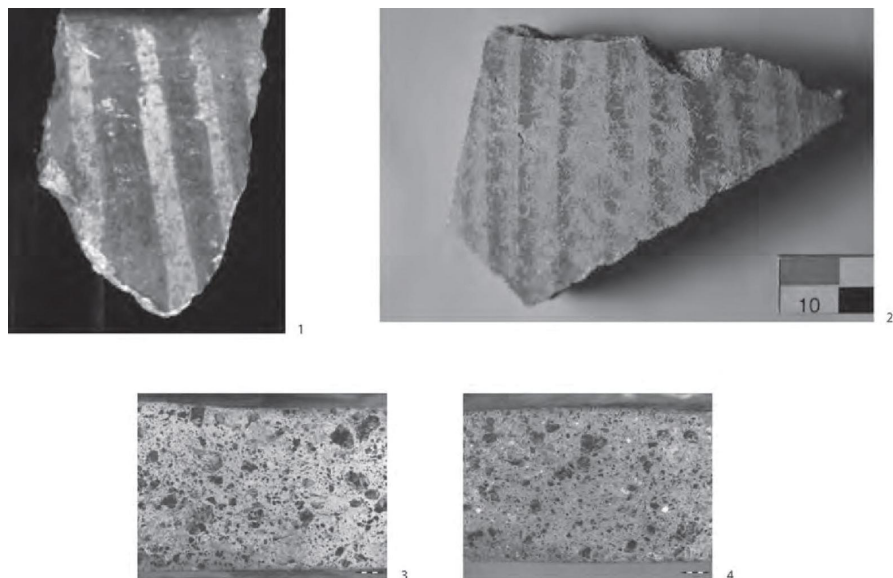


Figure 3.5. (Colour Pl. 5). Early painted pottery. 1: Tell Sabi Abyad (after Nieuwenhuyse et al. 2010, fig. 6). 2: Tell Seker al-Aheimar. Nos 3–4: densely mineral-tempered fabrics of two early painted pottery sherds from Tell Sabi Abyad.

Grey-Black Ware (Fig. 3.7/Colour Pl. 7, finally, offers yet another case of a linkage between dark/light surface colour and decoration. This ware is present in all Neolithic ceramic assemblages in the Jezirah and Northern Levant, although not in the early ones (Le Mière and Nieuwenhuyse 1996, 146–147; Le Mière 2001, 179–181). It could be a specialized production, as suggested by its very specific characteristics and by its chemical composition (Bader *et al.* 1994). It is usually fabricated from calcareous clay which could have resulted in a light colour, but instead its surface is uniformly dark, from grey to black. This can only have been the result of an intentional darkening produced by reducing the post-firing atmosphere. The section of intentionally darkened pottery displays alternating colours reflecting the succession of oxidizing and reducing stages; if it was fully re-oxidized before the start of the intentional post-firing reduction stage, then the paste is light in colour throughout the section and only the surface is dark (Fig. 3.7, 1); if it was not fully re-oxidized then the core is dark with two outer light zones and a dark surface (Fig. 3.7, 2).

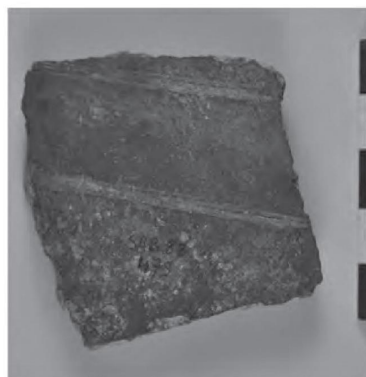
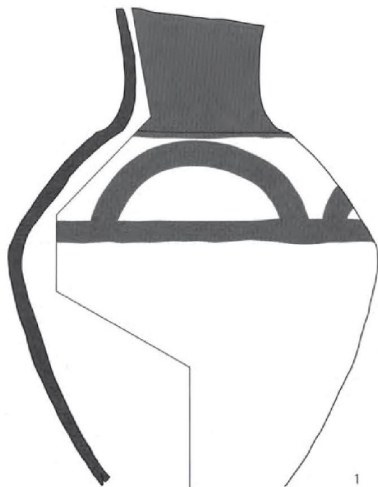


Figure 3.6. (Colour Pl. 6). Painted Dark-Faced Burnished Ware from Tell Sabi Abyad (1: after Nieuwenhuyse 2007, pl. 85, no. 12; 2: photo by M. Le Mière).

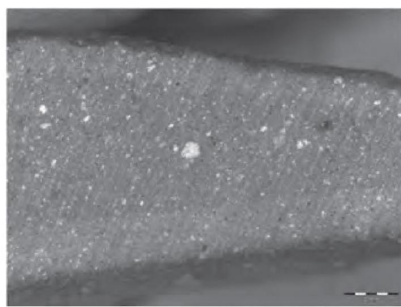
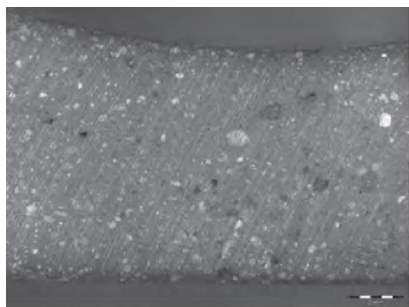


Figure 3.7. (Colour Pl. 7). Fabrics of two Grey Black Ware sherds from Tell Seker al-Aheimar.

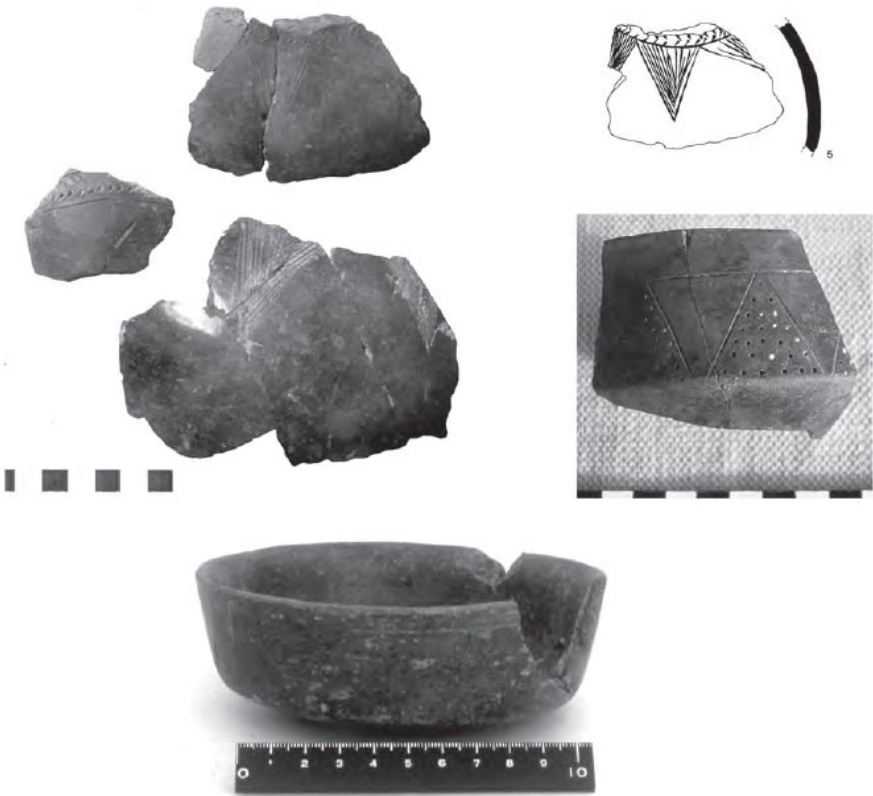


Figure 3.8. Decorated and plain Grey Black Ware. 1–2: Tell Sabi Abyad (2: after Le Mière and Nieuwenhuyse 1996, fig. 3–19, no. 5). 3: Tell Bouqras. 4: Tell Kosak Shamali (after Le Mière 2001, pl. 7-1, no. 2).

Unlike Dark-Faced Burnished Ware this ware was never painted. Instead it was often decorated with impressions and incisions (Fig. 3.8, 1–2). These motifs were sometimes filled with a white substance, which made the patterns more visible and particularly decorative (Fig. 3.8, 3). But Grey-Black Ware could also be left plain (Fig. 3.8, 4); in this case, it appears that the dark colour was considered to be a type of decoration in itself, considering that it was deliberately obtained.

Conclusion

The earliest pottery known to date in the ancient Near East provides clear evidence not only for technical mastery of the firing temperatures necessary for pottery tempered with calcite or volcanic carbonate, but also for intentional colouring in the case of the painted pottery. Hence it is possible that the dark colour characterizing the earliest pottery was a deliberate choice. The intriguing resemblances in colour and shape between the PPNA chlorite stone vessels and the

earliest pottery, which initially gave rise to this paper, cannot be interpreted in terms of a direct link between the two categories of containers because of the long interval of time between the occurrences of each. We have argued that in later stages the dark colour of some pottery containers was very likely intentionally produced, purely for decoration, as exemplified by the Grey-Black Ware, it would be worth investigating the value of the dark/black colour, as has been suggested with regard to the Red-Black Burnished Ware of the fourth millennium. Found across central Anatolia and the upper Euphrates, the open shapes in this ceramic category are black inside and red outside while the closed ones are red inside and black outside: “it is as if in the visual conception of the pot the black colour was highlighted against, and preferable to, the other colour (the one contrasting with black)” (Palumbi 2008, 43).

Bibliography

- Akkermans, P. M. M. G. (1989) The prehistoric pottery of Tell Sabi Abyad. In P. M. M. G. Akkermans (ed.) *Excavations at Tell Sabi Abyad, Prehistoric Investigations in the Balikh Valley, Northern Syria*, 77–214, British Archaeological Report S468. Oxford, British Archaeological Reports.
- Bader, N., Bashilov, V., Le Mière, M. and Picon, M. (1994) Productions locales et importations de céramiques sur les sites du Djebel Sinjar au VI^e millénaire B.C. *Paléorient* 20/1, 61–68.
- Braidwood, R. J. and Braidwood, L. (1960) *Excavations in the Plain of Antioch I*. Oriental Institute Publications 56, Chicago, University of Chicago Press.
- Cruells, W., Faura, J. M. and Molist, M. (2017) Akarçay Tepe and Tell Halula in the Frame of the First Ceramic Productions in the Near East. In A. Tsuneki, O. Nieuwenhuyse and S. Campbell (eds) *The Emergence of Pottery in West Asia*, 27–42, Oxford, Oxbow Books.
- Erim-Özdoğan, A. (2011) Sumaki Höyük, a new Neolithic settlement in the upper Tigris Basin. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey, New Excavations and New Research*, 19–60, Istanbul, Archaeology and Art Publications.
- Faura, J. M. and Le Mière, M. (1999) La céramique néolithique du Haut-Euphrate syrien. In G. del Olmo Lete and J.-L. MonteroFenollos (eds) *Archaeology of the Upper Syrian Euphrates. The Tishrin Dam Area*, 281–298, Barcelona, Editorial Ausa.
- Kingery, W. D., Vandiver, P. B. and Prickett, M. (1988) The beginnings of pyrotechnology II: production and use of lime and gypsum plaster in the Pre-Pottery Neolithic Near East. *Journal of Field Archaeology* 15, 219–244.
- Le Mière, M. (2001) The Neolithic pottery from Tell Kosak Shamali. In Y. Nishiaki and T. Matsutani (eds) *Tell Kosak Shamali*, vol. 1, 179–211, Tokyo, University Museum, University of Tokyo.
- Le Mière, M. (2009) Early Near Eastern Neolithic pottery: the question of temper. In L. Astruc, A. Gaulon and L. Salanova (eds) *Méthodes d'approche des premières productions céramiques. Étude de cas dans les Balkans et au Levant*, 73–80, Rahden/Westahlen, Marie Leidorf, Internationale Archäologie.
- Le Mière, M. and Nieuwenhuyse, O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad, the Late Neolithic Settlement*, 117–284, Istanbul, Nederlands Historisch-Archaeologisch Instituut.
- Le Mière, M. and Picon, M. (1987) Productions locales et circulation des céramiques au VI^e millénaire au Proche-Orient. *Paléorient* 13/2, 133–147.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery. The Rise of Neolithic Ceramic Styles on the Syrian and the Northern Mesopotamian Plains*, Turnhout, Brepols.
- Nieuwenhuyse, O. P., Akkermans, P. M. M. G. and Plicht, J. van der (2010) Not so coarse, nor

- always plain- the earliest pottery of Syria. *Antiquity* 84, 71–85.
- Nishiaki, Y. and Le Mière, M. (2005) The oldest pottery Neolithic of upper Mesopotamia: new evidence from Tell Seker alAheimar, the Khabur, Northeast Syria. *Paléorient* 31/2, 55–68.
- Özbaşaran, M. and Molist, M. (2007) Akarçay Tepe, Orta Fırat'ta Neolitik Döneme Ait Yeni Bir Yerleşme. In M. Özdoğan and N. Başgelen (eds) *Türkiye'de Neolitik Dönem*, vol. 2, 179–187, İstanbul, Arkeoloji ve Sanat Yayınları.
- Özkaya, V. and Coşkun, A. (2008) The place and importance of Körtik Tepe in the cultural history of Anatolia. *Journal of Archaeology and Art (İstanbul)* 129, 1–18.
- Özkaya, V. and Coşkun, A. (2011) Körtik Tepe. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey, New Excavations and New Research*, 89–127, İstanbul, Archaeology and Art Publications.
- Palumbi, G. (2008) Mid-fourth millennium Red-Black Burnished Wares from Anatolia: a cross-comparison. In K. S. Robinson and A. Sagona (eds) *Ceramics in Transitions: Chalcolithic through Iron Age in the Highlands*, Ancient Near Eastern Studies 27, Monograph Series, 39–58, Louvain, Peeters.
- Rosenberg, M. (2011) Demirköy. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey, New Excavations and New Research*, 79–87, İstanbul, Archaeology and Art Publications.
- Tsuneki, A. and Miyake, Y. (1996) The earliest pottery sequence of the Levant: new data from Tell el-Kerkh 2, Northern Syria. *Paléorient* 22/1, 109–123.

Investigating painted, incised and impressed ware from the Late Halaf Period

Anna Gómez Bach

Abstract

The analysis of decorated pottery from the Halaf period allows us to investigate the technological and social organization of the communities of practice who lived in the Near East in the middle of the sixth millennium cal BC. The opportunity to study the pottery assemblages from the two Late Halaf sites; Tell Halula and Chagar Bazar, situated in the middle Euphrates valley and the Khabur valley, respectively, allows us to compare the Late Halaf ceramic *chaîne opératoire* in two different regions of the Near East. We may identify the existence of different technological practices; among them the production of the so-called *surface-manipulated* vases. The examination of incised, impressed and painted Halaf sherds brings to light important relationships between the type of decoration and manufacture. In this paper I argue that the Late Halaf potters favoured specific associations between ceramic technique, decorative motif and pottery type when selecting painted, incised or burnished decoration. This tells us something about the organization of pottery production and about the provenance of the pottery in the Late Halaf context.

Introduction

In the Late Halaf archaeological sequences a series of significant changes took place in the production and consumption of pottery. Although it is possible to speak about continuity with the previous period, certain new features appear. For most authors, including Mallowan (1936; 1937) and Davidson (1977), the most relevant feature to identify the final stages of the Halaf culture is the

appearance of new characteristics. These new characteristics include new shapes such as the hole-mouthed bowls and

bow-rim jars, the use of polychrome paints, and new productions like Red Ware. Specific shapes such as lids and spouts appear in small quantities and other shapes such as “Champagne vases” occur very exceptionally. In addition to increased, though still small quantities of bichrome and polychrome pottery, other tentative pottery changes have been identified; such as “energy kinetic rotating” potter’s development. In this paper we do not intend to generalize about Late Halaf ceramic assemblages because there are several problems with this approach. One is the assumed contemporaneity of the material studied and the other is the extra-regional view, when regional sequences are not still defined and only a few of them have been published. In that sense, we use this term, Late Halaf, from a chronological point of view using radiometric data results from Tell Halula and Chagar Bazar. Both sets of results are well-placed in the span of 5300 to 5500 cal BC (Cruells 2006b; Gómez Bach 2011; Molist 2013).

In this paper I discuss an intriguing ceramic category characterized by painted, incised and impressed decoration in combination with classic Halaf painted designs. Generally associated with Late Halaf archaeological contexts, it remains relatively unknown although Oppenheim and Mallowan described it in their research (Mallowan and Rose 1935; Mallowan 1936; 1937; 1946; 1947; von Oppenheim 1943). This pottery has been generally termed, surface-manipulated sherds, and it has tended to be ignored among large Halaf sets. But it is considered to be a type of innovative decoration, as authors such as Campbell noticed (Campbell 1992b, 38).

To characterise this phenomenon, two case studies of Tell Halula in the Euphrates valley and Chagar Bazar in Khabur have been carried out. Both yielded relevant Late Halaf ceramic assemblages including surface-manipulated pottery. The pottery from both sites was analyzed with similar methods using unified morphometric values and archeometric data (Gómez Bach 2011). I continue by synthesizing what is already known about this pottery. Surface-manipulated pottery has been reported from many sites, but, so far, has mostly been described only superficially; virtually no studies have scrutinized its ceramic technology in any depth. I follow this with the presentation of archaeometric studies on the Late Halaf ceramics from Tell Halula and Chagar Bazar, focussing on the surface-manipulated items. I conclude with placing the archaeometric results in a broader socio-economic context.

The origins and distribution of surface-manipulated Halaf pottery

Ceramics with incised or impressed decoration in combination with painted designs are well known in the Euphrates Valley since Pre-Halaf times (Faura 1996; Faura and Le Mière 1999; Faura and Molist this vol.) with a great variety of techniques, tools and stylistic motifs. This is also well attested in the Balikh valley such as Sabi Abyad with the Standard Fine Ware (Akkermans 1989; Nieuwenhuyse 2007) and in the Khabur with the ProtoHassuna assemblages (Le Mière 2000).

These traditions continue in the Proto-Halaf and Halaf formative stages at Tell Halula (Cruells 2001; 2005; 2008, 673) known as Incised/Impressed Slipped Ware associated with Fine Ware. Appearing on the Upper Tigris, the Standard Hassuna Incised Ware is well documented at Hakemi Use. This pottery had incised decoration in large bands on the outer surface (Tekin 2009a, 261; 2009b, 274).

During the beginning of the Halaf period this kind of decoration became stylistically simpler, and only simple incisions in coarse ware or burnished ware with simple geometric, mainly linear designs appear. Some examples, manufactured with fine ceramics have been sporadically documented since the Late Halaf at sites such as Tell Halaf (von Oppenheim 1943, Tafel lxxxviii). This documentation was with sherds from unstratified contexts with deep finger impressions, incisions and basketry. From a stratified context, at Tell Aqab at level XXX, Davidson described the phenomenon by saying that “another middle phase decorative technique seen at Arpachiyah has painted and incised decoration” (Davidson 1977, 180). Davidson was referring to a jar shoulder, from Aqab trench 2, showing an incised surface with paint in two different colours; red and black (Davidson 1977, 131). There are also a few examples known from Mallowan’s fieldwork at Tell Chagar Bazar (Mallowan 1936, 19, 27) and from the renewed excavations at this site (Cruells 2006b, 36–37). There are also two fragments which have been found in a survey of the Upper Khabur, with decoration painted in black, together with horizontal incisions (Nieuwenhuyse 2000, 167, fig. 21:1 and 2).

Further west, comparable styles occur at coastal Mediterranean sites. Ras Shamra had an extended repertoire, with impressions, incisions and basketry impressions combined with painting at level IVB (Contenson 1992, 402, 404, 412). At Ras Shamra, the Amuq influence due to geographical proximity it is clearly seen. In the Amuq Phase D some examples of corrugated ware were found in Tell Kurdu, mainly with incised, parallel lines. Others were identified in phase C, but were considered to be intrusive (Braidwood and Braidwood 1960,

163–164). South of the Upper Mesopotamian Jezirah, at Tell Masaikh, southern Syrian Euphrates, examples of corrugated ware have been found. Here such pottery has been termed Dalma Impressed Ware or Dalma Surface Manipulated, and it is characterized by a thick layer of clay added to the exterior of the vessel (Robert 2010, 177–179).

In northern Iraq these potsherds appear at several sites (Campbell 1992a, 182). At Arpachiyah the incised decoration comes from TT6 and phase IVb (Mallowan and Rose 1935, 127, pl. xxa; Hijara 1997, 24) and it is typically painted. The fabric of ware that is both painted and-incised is the same as that of the painted wares at those levels found at phase IVb (Davidson 1977, 71). Incised pottery is much less common than plain burnished Halaf fine ware wares before TT10 and the incised decoration mostly comes in the form of cross-hatching. Recipients also show finger impressions or a type of impression made with a thick layer of clay added to the exterior surface of the vase. The assignment of its technological description and stratigraphic becomes difficult. We may note several fragments from the same jar, scattered across levels TT5 and TT6, showing horizontal incisions, painted over with red and black paint (Campbell 2000, 26). At Yarim Tepe III at its Late Halaf levels (Merpert and Munchaev 1993, 202) painted designs are found on a painted or slipped background together with fine incised lines that often cover the entire surface of the vase. Furthermore, comparable material was found at Khirbet Derak (Breniquet 1996, 41, pl. 7), Kharabeh Shattani (Campbell 1995, 89), Choga Mami, Tepe Gawra (Tobler 1950) and Tell Abada (Oates 1983, 261, 253). In all these cases, the surface manipulation appears with painted motifs typical of the later Halaf period, on one or both surfaces.

Excavations in Turkey provided further evidence of impressed and incised painted Halaf wares. At Tell Turlu (Breniquet 1991) at level III–IV sophisticated forms occur with both geometric and naturalistic motifs. A few sherds show polychrome decoration together with incised decoration. The extensively researched Halaf levels at Domuztepe also yielded ceramics with these characteristics (Campbell *et al.* 1999, 409, fig. 12; Fletcher 2001, 583; 2008). Examples of impressed decoration include; rosette and coffee-bean motifs, and some incised and corrugated sherds from the so-called post-Halaf phases. At this site, this decoration was restricted to the upper body and neck of the pot. We can find parallels between the fine incised and painted sherds at Domuztepe and those at Tell Kurdu (Braidwood and Braidwood 1960, 164, 180). Pot sherds with incised decoration imitating basketry are also present (Campbell 2003, 6). Finally,

research in the Sirnak area of south-eastern Turkey has attested to the presence of incised/impressed and painted Halaf pottery (Erdalkıran 2009, 759).

In summary, this pottery reveals a chronological and geographical spread across a large swath of Upper Mesopotamia and North Levant although it always occurs in low numbers. This singularity has been reported by researchers, but has not been contextualized enough in relation to shape, raw material and date. The spread of this production can be mapped macroscopically with continuity, but the variability of this production can be seen as a discontinuous phenomenon. The review suggests that Late Neolithic people had some incised-impressed painted pottery although researchers still do not know if there is any relationship between these shaping and decorative techniques and symbolic or functional purposes.

Tell Halula and Chagar Bazar: two regional sequences

What is known as the Halaf culture responds to a cultural package documented in a vast geographical area that runs from south eastern Turkey to Iran and from northern Iraq and Syria to the Mediterranean coast (Fig. 4.1). Recent work on the Halaf culture has enhanced our understanding of the economic, social and symbolic organization of the agricultural and semi-pastoralist communities of the mid-sixth millennium cal BC (Cruells 2005; Campbell 2007). The collection of radiocarbon data helped to define the chronological framework for, specifically, the Late Halaf levels from Chagar Bazar and Tell Halula. The results, until now, have demonstrated a range between 5600 and 5330 cal BC (Gómez Bach 2011, 110, 206; Cruells *et al.* 2013; Molist 2013).

The geographical framework, where these sites are placed, is mainly characterized by the presence of low steppe ecosystems and the proximity of diverse and abundant water resources. This environment facilitates communication between regions, as people could follow the fluvial sources with their livestock. These routes might have helped in the ceramic transfer (Fig. 4.1).

The Euphrates valley is defined as a homogeneous landscape, not only formed by a set of common elements such as water resources, but also operates as a vertebral axis with various spheres of communication and influence. The results from the Tell Halula settlement pattern need to be read slightly differently from other Late Halaf sites because stratigraphy shows dynamic processes of deposition and construction in various excavated areas (Molist 1996, 17–67; 2001, 35–52; Molist *et al.* 2013). The studied potsherds come

from sector 30 AE, 30 AF, 30 N; sector 39 and sector 49.

The Khabur basin does not offer a homogeneous entity because of a large number of different geographical areas. The great basin of the Khabur is made up of a multitude of small seasonal streams or *wadis* that flow from north to south, creating a perennial river. Thus, the presence of a Neolithic settlement pattern near the river demonstrates the suitability of the valley for Neolithic communities. This area has been geographically modified since then by major episodes of sedimentation on well-documented sites; such as Chagar Bazar (Cruells 2006a; Cruells and Molist 2006; Tunca and Bagdho 2006). The studied potsherds come from area A at Chantier F which covers around 150 m² and have a rich stratigraphic sequence of about 3 m consisting of architectural remains of 11 occupation phases, dated as the second half of the sixth millennium cal BC (Cruells *et al.* 2013, 468).

The main objective of this ceramic research project was to interpret the Late Halaf organization of pottery production and to characterize the ceramic assemblages attested at the two sites, Tell Halula and Chagar Bazar, from an interdisciplinary point of view. A grand total of 37,882 ceramic potsherds from Late Halaf contexts of both sites were analyzed using morphometric, technological and functional methods. When possible, we conducted archaeometric techniques including petrographic and chemical analyses as well as PIXE or Particle-Induced X-ray Emission (Gómez Bach 2009; 2011; Gómez Bach *et al.* 2012).

General archaeometric properties of the surface-manipulated pottery

In general, both Halaf sites attest to an emphasis on the production of thin-walled Fine Ware vessels with relatively complex shapes, for the manufacturing of which, sometimes, time and greater skill were required. This is the reason why these pots were made using several shaping strategies: coiling, paddling, pinching and shaping were observed, as well as combinations of these techniques. In a few sherds we found evidence of rotation kinetic energy as a form of *tournette*, forming a stable base upon which pots could be shaped and dried until being fired. Our analysis reveals distinctive technological traditions, such as the use of baskets some of which can be identified based on macroscopic observation.

In quantitative terms, we find the painted and surfaced-manipulated sherds mainly in the category known as Fine Ware. At both sites this category represents only a small proportion of the decorated Fine

Ware (Table 4.1), but even so, the exact proportions with which it occurs differ significantly. At Tell Halula this category represents no more than 0.09% of the general production of decorated pottery, while at Tell Chagar Bazar it represents 0.11%. Moreover, there are clear differences between the two sites in terms of the technological variation within this kind of pottery. At Chagar Bazar we find more variation, as at this site this group includes painted-and-impressed surface-manipulated sherds that are not present at Tell Halula (Table 4.1).

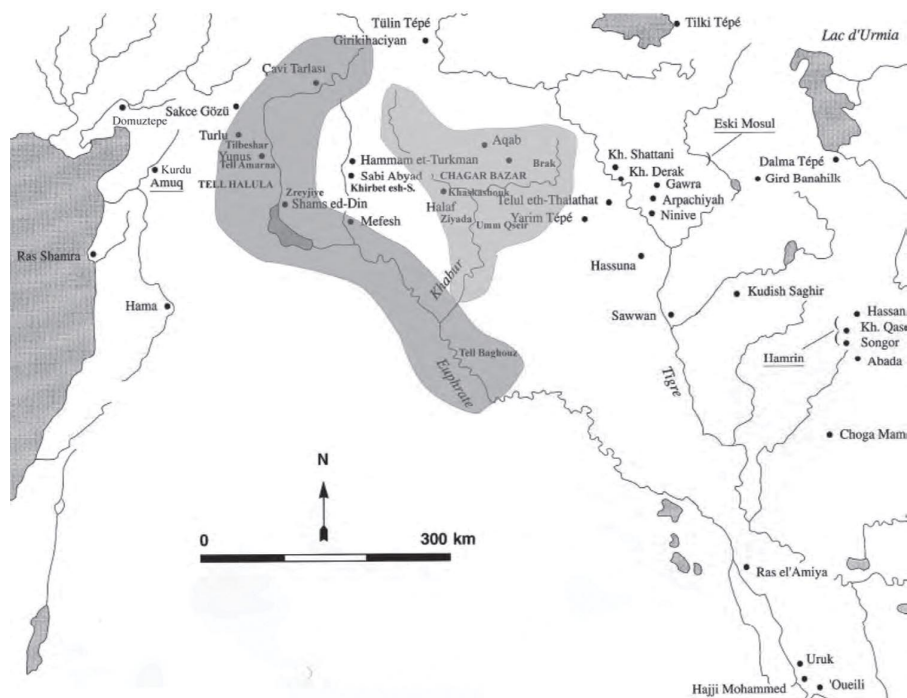


Figure 4.1. Map of main sites cited in text (after Breniquet 1996). The shaded areas indicate the Middle Euphrates and Khabur valleys where Tell Halula and Chagar Bazar are located.

Table 4.1. Tell Halula and Chagar Bazar. Absolute counts of plain and decorated Fine Ware sherds from both sites where on surface-manipulated sherds are presented by phase and sector

<i>NB Fine Ware sherds by site/No.</i>	<i>Tell Halula Total no.</i>	<i>No.</i>	<i>Phase</i>	<i>Sector</i>	<i>Chagar Bazar Total no.</i>	<i>No.</i>	<i>Phase</i>	<i>Sector</i>
Group 1: unpainted Fine Ware	10,502	10,502	I.II	30N, 39, 30 AF, 30 AF, 49	8934	8,934	I.II	CII. F
Group 2: painted Fine Ware	6150	6150	I.II	30N, 39, 30 AF, 30 AF, 49	12,236	12,236	I.II	CII. F
Group 3: painted and incised	16	1	Phase I	39	12	1	Phase I	CH. F
		5	Phase I	30AF		2	Phase II	CII. F
		6	Phase I	30 N		1	Phase III	CII. F
		4	Phase I	49		2	Phase IV	CH. F
						3	Phase VI	CII. F
						2	Phase X	CH. F
						1	Phase XI	CH. F
Group 4: painted and impressed	0		I.II		12	1	Phase I	CII. F
						1	Phase III	CII. F
						5	Phase V	CII. F
						1	Phase VI	CII. F
						2	Phase X	CH. F
						2	Phase XI	CH. F

The surface-manipulated sherds from Chagar Bazar generally show fine ware vessels with relatively complex shapes. For their manufacture considerable skill was required. A complex *chaîne opératoire* was identified. These pots were made using different shaping methods that included coiling, paddling, pinching and shaping and combinations of such techniques. Similar variability is evident in the surface treatments and firing strategies. In general, Fine Ware pots, characterised by fine mineral temper, show a predominance of slightly incomplete oxidising firing conditions, in contrast with typically reduced incomplete sections which are seen with the coarse wares from this site, characterized by dense amounts of coarse mineral and organic inclusions (7%). Most of the Fine Ware sherds have surfaces finished with a dark, white or self slip (65%), followed by smoothing, brushing and burnishing.

At Chagar Bazar, the general data-set shows that open forms make up 71% of the vases recovered; 24% are closed shapes and the remaining five percent have straight-sided, vertical walls. The most common shapes are small containers, like open bowls, closed bowls, and carinated bowls. We have also identified several types of dishes and medium-sized containers; such as pots and jars, where all kinds of surface treatments and painted decoration were applied. Vessels forms in this group include dishes, deep bowls and jars with relatively complex shapes. In general, these vases show the same level of skill as the rest of the production, except the surface-manipulated group which have different levels of skills.

At Tell Halula the surface-manipulated sherds show an emphasis on oxidising firing conditions with some cases of over-firing. The fabrics mainly show small mineral inclusions. Approximately one-third (36%) of the sherds do not have evident surface treatment, nine percent are smoothed. The ones that are smoothed are dominated by the presence of slips (dark or light ones). At this site, the incised and impressed

wares are associated with the Fine Wares decorated with a white or cream slip.

At Tell Halula the general pottery collection mostly consists of closed shapes, in unequivocal terms. The most common shapes are small, closed containers like closed bowls or small jars (Fig. 4.2, 1, 2, and 3). These pots were made using different methods, including coiling, paddling, pinching and mixing several of these techniques.

Analyzing the raw materials of surface-manipulated pottery

Petrographic analyses show that the ceramic production from the two sites can be classified into 23 distinct petrographic groups. This number includes both the Coarse Wares and the Fine Wares. Surface-manipulated sherds are only found in three of these petrographic groups, which we provisionally termed S1 (n = 1), S2 (n = 15) and S3 (n = 24).

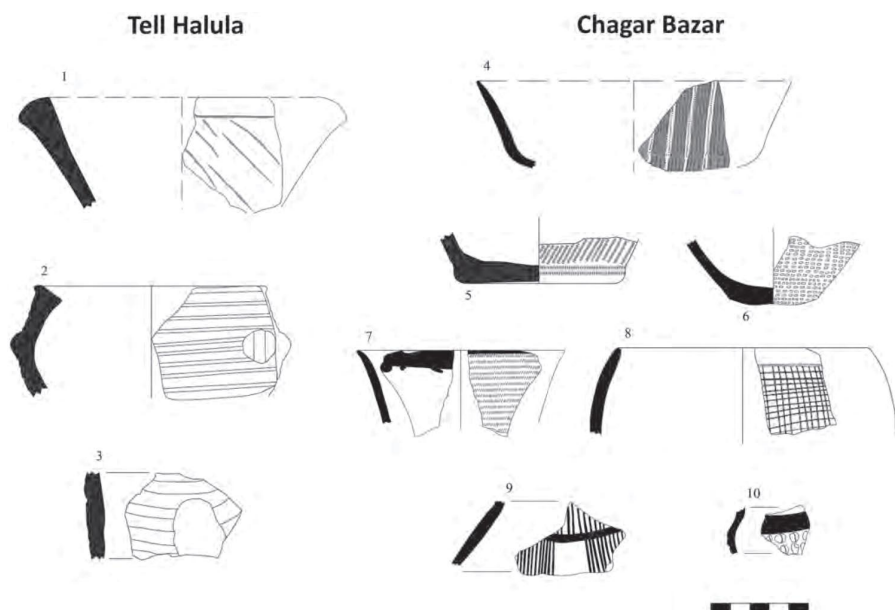


Figure 4.2. Tell Halula and Chagar Bazar. Typical vessel shapes with impressed, incised and painted decoration: Tell Halula: 1. (THL1277); 2. (THL1395); 3. (THL1444); Chagar Bazar: 4. (CB 3813); 5. (CB 4622); 6. (CB 6273); 7. (CB 7291); 8. (CB 7969); 9. (CB 8461); 10. (CB 8462).

Group S1: Characterized by small mineral inclusions. The matrix is clayey and cottony. The appearance is heterogeneous, while under polarized light it becomes more anisotropic. The clay structure is fluidal. The porosity is abundant with small to medium-sized, irregular pores. Dominant minerals include quartz, mica and biotite,

which are seen as undulating edges. On the external surfaces the presence of carbonates contamination is revealed and there are small patches of iron oxides. We have interpreted this fabric type are either representing either local production at Tell Halula or as coming from a third source in the Euphrates Valley that so far remains unknown. This group represents eleven percent of the total sample, and the two percent of the surface-manipulated sherds sample.

Group S2: Characterized by abundant mineral inclusions, of small to medium size, serial. The matrix is argillaceous acicular. The appearance is heterogeneous while under polarized light it becomes more anisotropic. The clay structure is watery. This fabric shows abundant pores, not too large in size, of elongated shape and arranged parallel to the vessel walls. The mineral consists of quartz (with undulating edges), biotite mica, plagioclase, very few fragments of basalt, pyroxene. Noteworthy is the presence of carbonates of contamination on the outer surface of the sample. This group represents 18% percent of the total sample, and the 38% of the surface-manipulated sherds sample. As for provenance, the variability within this group allows different hypotheses. The majority of the samples may have been manufactured at neither of the two sites studied but at a third, still unknown production center. Others may have come from Chagar Bazar itself or from some other nearby location in the Upper Khabur with a similar petrography.

1. The majority of ceramics are manufactured at a third centre of production, neither Chagar nor Halula.
2. Ceramic composition which may have come from Chagar Bazar area or somewhere else with a similar acquisition area in a petrographic point of view.

Group S3: Characterized by dense amounts of mineral tempers of small to large size, serial. The matrix is argillaceous acicular. The appearance is heterogeneous while under polarized light it is more anisotropic while the clay structure becomes watery. The temper consists of quartz (with small to medium undulating edges) and fragments of carbonate rocks, limestone and granite. This group as a whole almost certainly corresponds to the local production from Chagar Bazar where mud brick from the site and wadi samples were included. This group represents 47% of the total sample, and the 60% of the surface-manipulated sherds sample. Interestingly, as part of this group there are seven samples from Tell Halula. However at present we dare not to interpret these as output from Chagar Bazar reached to Tell Halula through networks of exchange. Rather we believe they

represent another manufacturing area that remains to be identified (Fig. 4.3/Colour Pl. 8).

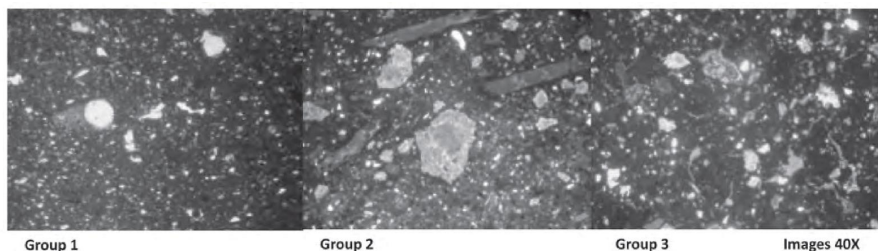


Figure 4.3. (Colour Pl. 8). Tell Halula and Chagar Bazar. Microphotographs of Fine Ware samples from the three petrographic groups carrying incised-impressed decoration. Photos taken under cross non-polarised light 4.0 mm field of view.

The identification and site distribution of these fabric groups allows us not only to investigate networks of ceramic exchange in the Late Halaf period but also to discuss variability in acquisition strategies for producing surface-manipulated pottery. On both sites different strategies for the acquisition of raw materials have been identified. At both Chagar Bazar and Halula we observe a strong presence of local fabric types, but at the same time we identify non-local elements at both sites. Although at present we are not yet able to locate the specific provenance or even the approximate locus of origin for many of the non-local fabric types, we can suggest several potential areas of supply. What is important as far as the surface-manipulated ceramics are concerned is that for this category the variability in fabric types is shared with the rest of painted and unpainted Halaf Fine Ware types. The various categories of plain and decorated Halaf Fine Ware pottery at the two sites all comprise very similar local and non-local elements (Gómez Bach 2011). In order to assess the significance of these findings and to situate the production of surface-manipulated Halaf ceramics in a broader regional context, future work should compare the results from Chagar Bazar and Halula with the petrographic and chemical analyses that recently have been made of painted-and-incised Halaf Fine Ware from Arpachiyah and Tell Masaikh (Robert 2010, 206; Spataro and Fletcher 2010, 97).

Let us now move on to the investigation of the pigments used for painting. For studying the painting technologies we sampled the entire range of pigments and decorative elements attested at the two sites. Our program subjected a total of thirteen Halaf Fine Ware sherds from Tell Halula and 35 Halaf Fine Ware from Chagar Bazar to several nondestructive characterization methods in the laboratory of the Centre Européen d'Archéométrie (Université de Liège), including

PIXE, XRF and XRD. The study of these sherds pointed to an extreme variability of pigment compositions observed at the surfaces (Gómez Bach *et al.* 2012).

The chemical compositions of the pigments obtained from XRF analysis confirm those that we obtained from XRD. The results show Mn, F, Si and Al as main elements, although there are minor elements such as Ca (<1.5%), Mg and Al (c. 0.3%). Other elements, such as Cl, K and P, were detected in equally small percentages (0.2–0.25%), except S which was even less (<0.08%). The application of PIXE to this sample confirmed the strong presence of Mn in some samples.

Traditionally paint colours have been attributed to the application of organic pigments such as charcoal. At Chagar Bazar and Halula, however, organic dark pigments became less frequent in the later phases of the Halaf period (Gómez Bach *et al.* 2012). In this phase the application of pigments of iron oxide, hematite and magnetite for producing red and brown colours was still in use, as was common practice in earlier stages of the Halaf period (Diebold *et al.* 2005; Gilbert 2004). The addition of manganese for producing dark paint was a Late Halaf innovation (Gómez Bach 2011). The results show that in both surface-manipulated sets we find the use of manganese to give a dark colour with a matte finishing.

A typology of surface-manipulated decoration

The detailed study of the surface-manipulated sherds from Halula and Chagar Bazar yields a wealth of information on the typology and ways the potters created the surface textures of this still poorly known ceramic category. This brings to light intriguing differences between the two sites.

Thus, at Tell Halula all the so-called surface-manipulated examples were decorated with incisions, showing horizontal or diagonal lines, made with a continuous or intermittent contact between the tool and the vase (Fig. 4.2, 1–3). A common decorative technique is to scratch or incise the surface with a bone, potsherd or flint tool while the clay was still fairly wet. Often the lines obtained in this manner are not sharp, because the clay removed to create them remained on the surface. This property, incidentally, helps to distinguish the direction of movement in horizontal lines. At Tell Halula this pottery without exception falls into the “finer” ranges of Halaf Fine Ware production characterized by a completely oxidized firing and the application of white slip.

At Chagar Bazar within the broader set of surface-manipulated sherds we identified a small group of fragments that were worked

differently. The differences are mainly found in the way potters treated the external surface, which they manipulated with varying tools and decorative techniques. This affected a greater diversity in the surface-manipulated decoration than seen at Tell Halula. In all examples recovered so far there pieces were crafted from fine clay without macroscopically visible inclusions, and having a completely oxidized firing. As at Tell Halula they fall into the “finer” ranges of Halaf Fine Ware production. The associated paints were either monochrome (black) or polychrome (combining black and red and white) and mostly are mate. However, in contrast to Tell Halula they were not accompanied by a slip. The small sample we have collected thus far ($n = 40$) suggests three basic categories of surface manipulation: incisions, impressions, and basketry impressions. They are all medium-sized containers; mainly open bowls but including three jars as well. At Tell Halula they appear in different levels at the site, although a significant percentage of sherds clusters located in same stratigraphical phase.

The research has so far not enabled us to reconstruct the exact tool types used for creating these surface effects, which would require a comparative study using experimental methods. We may tentatively suggest that potters successfully employed both soft and hard materials including finger nails and sharply-pointed tools. Differences were established by, first, selecting specific tools and, second, using different gestures. The uses of the surface-manipulated bowls and jars have not been identified so far.

In the case of the incisions ([Fig. 4.4/Colour Pl. 9](#)), the grid motif appears most frequently, especially the horizontal lines supplemented by vertical strokes (e.g. [Fig. 4.4, a](#)). In other instances a composite tool as a comb was used ([Fig. 4.4, b](#)). These incisions were made with a very fine, sharp-pointed tool and the proximity of the lines and their distribution means that most of the surface was decorated. Yet other examples show simple horizontal lines ([Fig. 4.4, c](#)). Finally, the collection of incised sherds includes a distinct, highly homogeneous group, characterized by the tool plus gestures continuously repeating the same motif. This intriguing style consists of a semi-circular scooping action leaving additional remnants of clay on the external wall of the vessel as shown in [Figure 4, d](#) and [4, e](#). These examples find parallels in the Halaf-Ubaid Transitional pottery of Khirbet Derak ([Breniquet 1996, 159](#)).

The group of impressed surface-manipulated pottery is variable. Within this group some examples appear to be part of medium-sized pots or jars ([Fig. 4.5, a](#) and [Fig. 4.5, b](#)), whereas the rest of the

assemblage belongs to smaller vases (Fig. 4.5, d) or carinated bowls (e.g. Fig. 4.5, c). Much variability is seen in the use of combs and other tools made from soft material (wood or bone) that were employed to make the desired impression.

Late Halaf sherds showing basketry impressions, finally, are quite homogeneous both stylistically and in terms of ceramic technology (Figs 4.6, a–d). The examples attested so far ($n = 7$) cluster at Tell Chagar Bazar in phases V and phase XI (Late Halaf). These potsherds belong to medium-sized containers, especially jars, of which three shoulders have been recovered (Figs 4.6, a, c and d). All these sherds are painted in two-colours (black and red) in addition to carrying basketry impressions.

The basketry impressions could be the result of several technological practices. The baskets may have been tools employed in the manufacturing process. The impressions may at the same time have constituted a form of decoration or a type of surface finishing, similar to the application of smoothing. Macroscopic observation of the impressions shows that they look like raw grass sewn in a spiral, perhaps *Stipa barbata* or some other large grass with a similar resistance (Adovasio 1977; Crowfoot 1982; Fiches and Stordeur 1989; Godon 2010, 699; Di Lernia *et al.* 2012;). At Chagar Bazar examples come from phases III, V, VI and especially XI, in which level there is a concentration of these sherds. Each of our examples belongs to a different vessel. Earlier excavations, too, have yielded several examples (e.g. CB 1392/3 and CB 1395/7 (Ch. E) and CB 1436/4 of Chantier F (Cruells 2006b, 36–37).

To conclude, our investigation has brought to light significant differences between the production and consumption of surface-manipulated Halaf Fine Ware at the two sites of Tell Halula and Chagar Bazar. The samples from Tell Halula are more homogeneous and show stronger similarities in techniques and aesthetics in spite of variability in vessel shape. While this pottery was never produced in large amounts we can say that there was a certain unity in the set, both in provenance and with the organization of craft production in general. In contrast, at Chagar Bazar there was greater diversity evidenced by differences in skill, aesthetics and techniques used. The presence of greater diversity in clay sources lets us to propose a complex organization of the production, distribution and consumption of impressed and incised painted sherds (Fig. 4.7).

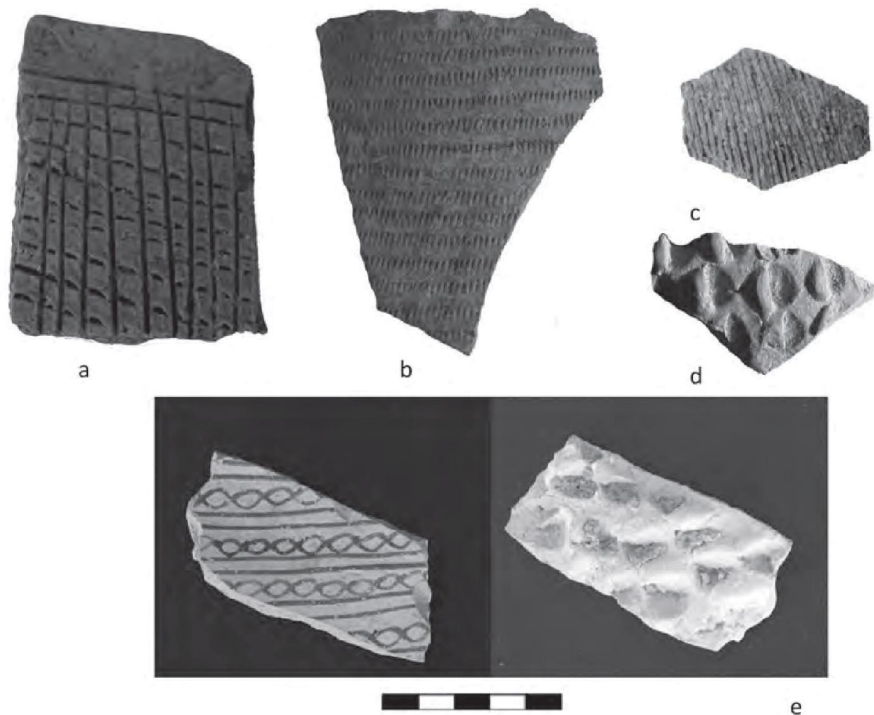


Figure 4.4. (Colour Pl. 9). Tell Chagar Bazar. Examples of Halaf Fine Ware with painted and incised decoration: a. (CB 7969, Phase I); b. (CB 7291, Phase II); c. (L.35, Phase V); d. (L. 11, Phase X); e. (CB 7980, Phase V).

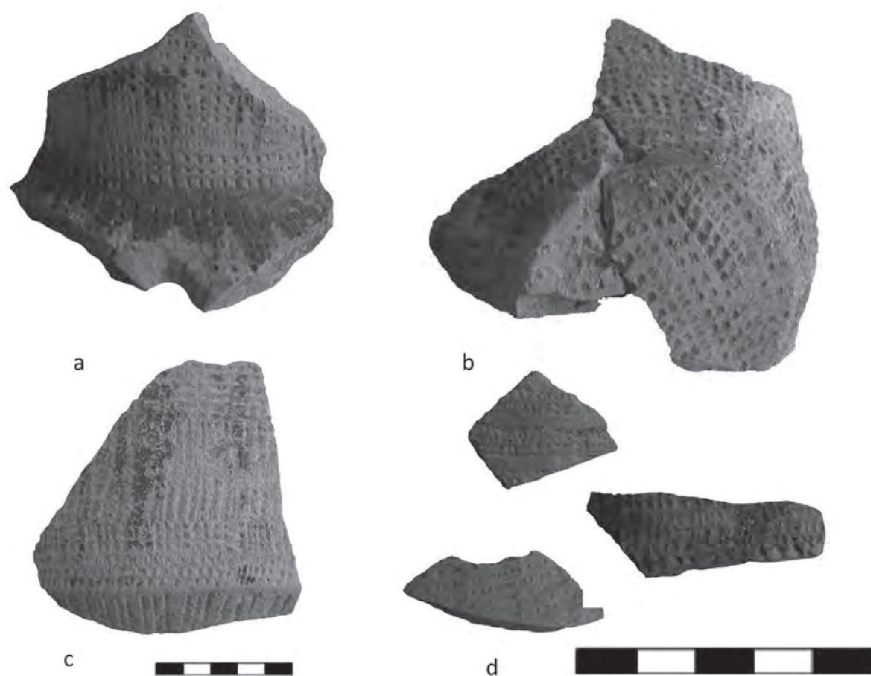


Figure 4.5. Tell Chagar Bazar. Halaf Fine Ware sherds with impressed and painted decoration: a. (L. 66, Phase V); b. (CB 6273, Phase VI); c. (CB 3813, Phase XI); d. (L. 74, Phase III).

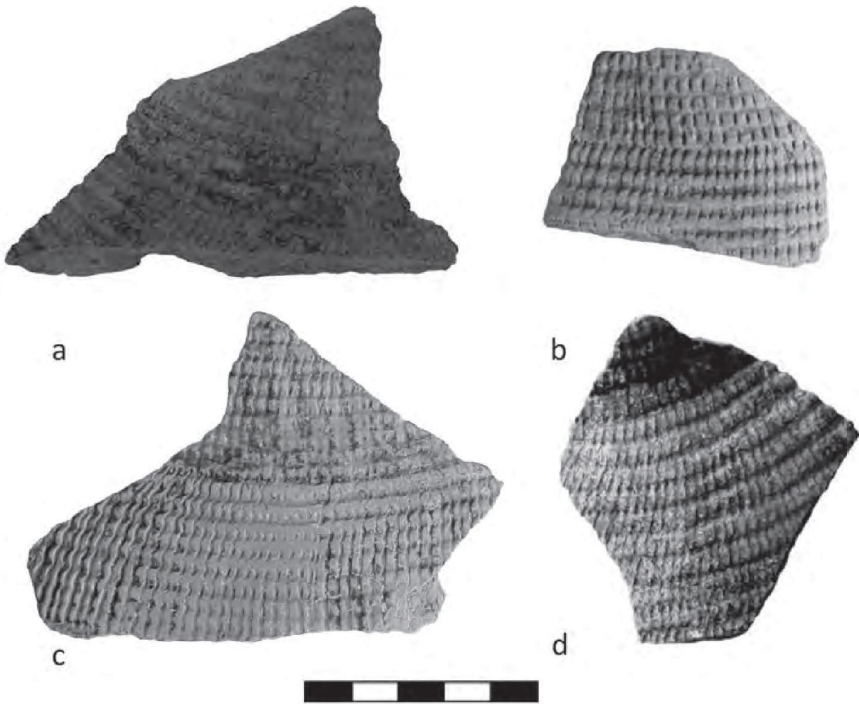


Figure 4.6. Tell Chagar Bazar. Halaf Fine Ware jars shoulders with basketry impressions and bichrome painted decoration: a. (L.30, Phase V); b. (L. 11, Phase X); c. (CB 8461, Phase XI); d. (L. 83, Phase V).

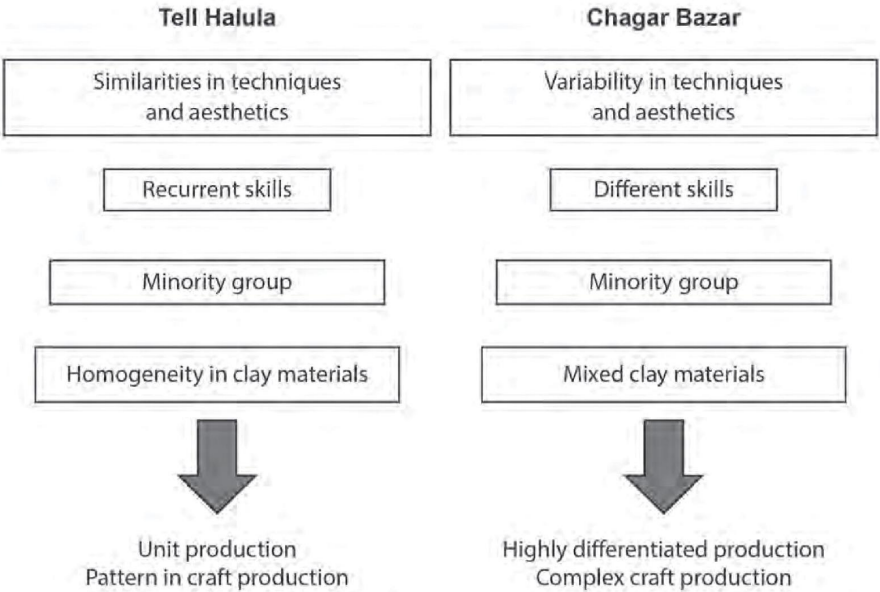


Figure 4.7. A schematic manufacture comparison process of surface-manipulated Halaf Fine Ware

Concluding remarks

The ceramic analysis at Tell Halula and Chagar Bazar has contributed significantly to our understanding of techniques of pottery manufacture over a 200-year period (5600–5300 cal BC) at the end of the Halaf period. A minor component in the ceramic assemblage of this period, the incised, impressed and painted pottery known as Surface-Manipulated Fine Ware attests to a complex organisation of craft production more extensive than was previously believed.

Ceramics with incised, impressed and painted decoration are well documented in large quantities since Pre-Halaf times. But incised/impressed painted fine ware was much less defined. This category belongs to shapes that may represent the typical component of a normal dwelling; mainly in simple and complex bowls, pots and jars. These vases have also been found in Late Halaf sites in north Iraq, Turkey and Syria. Historical sites as Arpachiyah, Tell Halaf, Yarim Tepe III, Tell Hassuna or Rash Shamra and recently excavated ones such as Domuztepe, Tell Masaikh, Tell Kurdu, Tell Halula or Tell Chagar Bazar will provide us with a new stratigraphical comparative sequence. These examples included sherds with deep finger impressions, tidy fingernail impressions and a distinctive type where a thick layer of clay was added to the exterior of the vessel. Basketry examples are also present in Domuztepe, Tell Halaf, Yümük Tepe, Tell Turlu and Rash Shamra. In many cases, the surface-manipulated ware is combined with classic Halaf painted motifs, as we have seen in Chagar Bazar.

Furthermore, the variability in the output here could be interpreted as a sign of regional variability. The presence of incised and impressed vases, as well as basketry and other technological variables indicate that these skills seem to have played an important role in communities of practice and between potters throughout Late Halaf. These sherds, along with vessels used for food handling and processing, could be a new line of research focussed on identifying their idiosyncrasy.

At first glance, and because of its finishing singularity, it can be suggested that these vases were not made locally at the sites where they were found, as several authors indeed have proposed (Davidson 1977). These authors did not suggest likely candidates for the provenance of such “imports”. The provenance studies conducted on Surface-Manipulated Halaf Fine Ware from Chagar Bazar and Tell Halula have shown that the issue is considerably more complex, and

that the generalistic hypothesis of “non local production” is too simplistic. In spite of its deviant surface treatment, we emphasise that this ceramic category as a whole does not belong to a completely different, “alien” ceramic tradition, but instead was an integral part of the later Halaf pottery tradition. As several studies have shown, ceramic exchange was common in Late Halaf times, even if the social mechanisms behind it remain for the most part obscure (Campbell 1992b; Breniquet 1996; Campbell and Fletcher 2010). At these two sites, surface-manipulated pottery comprises of both locally made items and imported items. Exact source areas for the non-local sub groups remain to be identified; this represents an important goal for future research. We suggest that the fabric variation of surface-manipulated pottery is the same as that of the other Halaf Fine Pottery. This hypothesis has been attested with Chagar Bazar and Halula sets but with variations by site and chronological phases.

The surface-manipulated Halaf Fine Ware may reflect broader changes in the organization of pottery production in the Late Halaf period. One aspect to remark on is the increase in the use of minerals as a raw material for pictorial decoration. This is seen in pigments acquisition based on manganese oxide in the later Halaf. The adoption of pigments based on manganese oxide can be considered to be a strategy towards production optimization. While access to raw material and experience in handling may have been widely available to the community.

Potters may have been experimenting; combining new and old technologies in a phenomenon that we can identify as a technological brake or pause and this process must be studied in further detail in other sets and sites. Another observation is the decrease in attention paid to the surface finish of some products. Less investment in surface finishing and stylistic elaboration of some fine and coarse pottery has been documented. This may respond to an increase in demand and production for some vessels over other ones.

As we have seen, the manner in which Halaf Fine Ware vessels were decorated at Chagar Bazar and Halula can be defined as highly structured. Potters chose design subjects (the motifs) that were appropriate to the type of vase and to the decorative technique used. For decorating, they preferred specific areas of the vessel over others. Pottery decoration, including the incised/impressed and painted styles, was becoming more standardized in this period. In this regard, it foreshadowed the stylistic standardization of the Ubaid period. Within basketry sample measurements, we can observe increased uniformity of size in base shapes. Basketry imprints from Chagar Bazar

also suggest the standardisation of this specific production and decorative technique. This decoration can be understood as a symbolic code which was used as a communication resource between these communities. The increased stylistic and technological diversity in Late Halaf ceramic production should be seen against the background of increasing social complexity and interaction across larger areas. Within this exchange the meanings of stylistic messages were complex and could change according to the context of use. At the same time, however, we should not exclude the possibility that manipulated surface treatments had mundane, non-symbolic roles to enhance the practical performance of the vessels. As mentioned already by other authors (Breniquet 1996), this peculiar treatment may have had the functional purpose of increasing grip while handling the vessels.

Interestingly, although we lack adequate quantitative data, several authors have already noted that these vases appear to be characterised by geographical spreads that move across the regional boundaries conventionally understood as the Halaf culture group. They often overlap with non-Halaf ceramic styles. In some parts these ceramics may constitute a local tradition, pre-dating the introduction of Halaf stylistic elements to the area. Thus, rather than clearly defined cultural areas in the later Halaf period we should expect much more diffused pattern of stylistic and technological preferences. For instance, incised and fingernail impressed pottery is characteristic of the Ubaid ceramic assemblages in the Hamrin region, as well as of the impressed Dalma pottery of the north-western and central Zagros (Vitali and Henrickson 1987; Campbell 1992a; Breniquet 1996; Tonoike 2009; 2010; 2013). It does seem to be likely that we should see these various categories as very broad contemporary manifestations of a similar decorative concept (Campbell 2010, 147).

Surface-manipulated Halaf vessels may have had a specific role in communities constituting the Late Halaf horizon. They may have been vessels for special purposes such as feasts or they may have contained special products. Further investigation is needed into the issue of whether this category represents the outcome of a collective, domestic mode of ceramic production or, instead, it was the expressions of individuality manifested through decorated Fine Ware. The production of this pottery suggests innovative techniques were used to reproduce traditional aspect. In this context the impressed and incised Halaf Fine Ware pottery is evidence of a ceramic tradition, although small, which shows a kind of *koiné* throughout the Halaf culture area.

Bibliography

- Adovasio, J. M. (1977) *Basketry Technology, a Guide to identification and Analysis*, Chicago, Aldine.
- Akkermans, P. M. M. G. (1989) *Excavations at Tell Sabi Abyad. Prehistoric investigations in the Balikh valley, northern Syria*, Oxford, British Archaeological Report S468.
- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavations in the Plain of Antioch I*, Chicago, University of Chicago Press.
- Breniquet, C. (1991) Un site Halafien en Turquie méridionale: Tell Turlu. Rapport sur la campagne de fouilles de 1962. *Akkadica* 71, 1–35.
- Breniquet, C. (1996) *La Disparition de la culture de Halaf: les origines de la culture d'Obeid dans le nord de la Mésopotamie*, Paris, Editions Recherche sur les Civilisations.
- Campbell, S. (1992a) The Halaf Period in Iraq: Old Sites and New Period. *Biblical Archaeologist* 65/4, 182–187.
- Campbell, S. (1992b) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, PhD thesis, Edinburgh, University of Edinburgh.
- Campbell, S. (1995) The Halaf pottery. In D. Baird, S. Campbell and T. Watkins (eds) *Kharabeih Shattani II, Occasional Papers*, 55–90, Edinburgh, Department of Archaeology, University of Edinburgh.
- Campbell, S. (2000) The burnt house at Arpachiyah: a reexamination. *Bulletin of the American School of Oriental Research* 318, 1–40.
- Campbell, S. (2003) Domuztepe 2003 Excavation Season. *Anatolian Archaeology* 9, 4–6.
- Campbell, S. (2007) Rethinking Halaf chronologies. *Paléorient* 33/1, 103–136.
- Campbell, S. (2010) Understanding symbols: putting meaning into the painted pottery of prehistoric northern Mesopotamia. In D. Bolger and L. C. Maguire (eds) *Development of Pre-State Communities in the Ancient Near East*, 147–155, Oxford, Oxbow Books.
- Campbell, S. and Fletcher, A. (2010) Questioning the Halaf-Ubaid transition. In R. A. Carter and G. Philip (eds) *Beyond the Ubaid: Transformation and Integration in the Late Prehistoric Societies of the Middle East*, SAOC: Studies in Ancient Oriental Civilization 63, 69–83. Chicago, Oriental Institute of the University of Chicago.
- Campbell, S., Carter, E., Healey, E., Anderson, S., Kennedy, A. and Whitcher, S. (1999) Emerging complexity on the Kahrmanmaras Plain, Turkey: the Domuztepe Project. *American Journal of Archaeology* 103/3, 395–418.
- Contenson, H. de (1992) *Préhistoire de Ras Shamra: Les sondages stratigraphiques de 1955 à 1976*. Ras Shamra-Ougarit VIII, Paris, Éditions Recherche sur les Civilisations (A. D. P. F.).
- Crowfoot, E. (1982) Textiles, matting and basketry. In K. M. Kenyon and T. A. Holland (eds) *Excavations at Jericho IV*, 546–550, London, British School of Archaeology in Jerusalem.
- Cruells, W. (2001) Nuevas aportaciones a la cultura Halaf en Siria. In J. L. Montero, J. Vidal and F. Masó (eds) *Actas del 1 Congreso de Arqueología e Historia Antigua del Oriente Próximo: De la Estepa al Mediterráneo*, 135–157, Barcelona, Monografies Eridu 1.
- Cruells, W. (2005) *Orígens, emergència i desenvolupament de la ceràmica Halaf a Síria*, PhD thesis, Barcelona, Universitat Autònoma de Barcelona.
- Cruells, W. (2006a) Les sondages préhistoriques (Chantiers E-FIFII-K). In Ö. Tunca and A. M. Baghdo (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 5–24, Louvain/Paris/Dudley, Petters.
- Cruells, W. (2006b) La poterie. In Ö. Tunca and A. M. Baghdo (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 25–80, Louvain/Paris/Dudley, Petters.
- Cruells, W. (2008) The Proto-Halaf: origins, definition, regional framework and chronology. In J. M. Córdoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of 5th International Congress on the Archaeology of the Ancient Near East, Madrid, April 2006, UAM III*, 257–270, Madrid, Universidad Autónoma de Madrid.
- Cruells, W. and Molist, M. (2006) Chagar Bazar au sien de la préhistoire du bassin du Khabur. In Ö. Tunca and A. M. Baghdo (eds) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*, 143–154, Louvain/Paris/Dudley, Petters.
- Cruells, W., Gómez, A., Bouso, M., Guerrero, E., Molist, M., Tornero, C. and Tunca, Ö. (2013) Chagar Bazar: A new Halafian sequence for Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogarsch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 467–478, Turnhout, Brepols.
- Davidson, T. E. (1977) *Regional Variation within the Halaf Ceramic Tradition*, PhD. thesis,

- Edinburgh, University of Edinburgh.
- Diebold, B. H., Speakman, R. and Glascock, M. D. (2005) Laser Ablation-ICP-MS Analysis of Late Neolithic Ceramic Pigments from the Amuq Plain, Turkey. In R. Speakman and H. Neff (ed.) *Laser Ablation ICP-MS in Archaeological Research*, 125–137, Albuquerque, University of New Mexico Press.
- Di Lernia, S., Massamba, I. and Mercuri, A. (2012) Saharan prehistoric basketry. Archaeological and archaeobotanical analysis of the early-middle Holocene assemblage from Takarkori (Acacus Mts, SW Lybia). *Journal of Archaeological Science* 3/6, 1837–1853.
- Erdalkıran, M. (2009) The Halaf ceramics in Sirnak area, Turkey. In J. M. Córdoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of 5th International Congress on the Archaeology of the Ancient Near East, Madrid, April 2006, UAM I*, 755–766, Madrid, Universidad Autónoma de Madrid.
- Faura, J. M. (1996) La cerámica pre-Halaf. In M. Molist (ed.) *Tell Halula (Siria): un yacimiento Neolítico del valle medio del Éufrates, campañas de 1991 y 1992*, 91–97, Madrid, Instituto del Patrimonio Histórico Español.
- Faura, J. M. and Le Mièrre, M. (1999) La céramique néolithique du haut Euphrate Syrien. In G. del Olmo and J. L. MonteroFenollós (eds) *Archaeology of the Upper Syrian Euphrates. The Tishrin Dam Area, Proceedings of the International Symposium, Barcelona, January 28th–30th 1998*, 281–298, Sabadell, Editorial AUSA.
- Fiches, J.-L. and Stordeur, D. (eds) (1989) *Tissage, corderie, vannerie: approches archéologiques, ethnologiques, technologiques*. IX Rencontres internationales d'Archéologie et d'Histoire d'Antibes, Éditions APDCA, 19–39, Juan les Pins.
- Fletcher, A. (2001) *A Contextual Study of Ceramic Evidence for Social Relations and Change during the Halaf-Ubaid Transition*, PhD thesis, Manchester, University of Manchester.
- Fletcher, A. (2008) Ceramic styles at Domuztepe: evidence for social interaction in the late Neolithic. In H. Kühne, R. M. Czichon and F. J. Kreppner (eds) *Proceedings from the 4th International Congress of the Archaeology of the Ancient Near East Berlin 2004*, 111–124, Wiesbaden, Harrassowitz.
- Gilbert, B. (2004) Analysis of the painting on six Halaf Period pottery samples from Tell Amarna (Syria). In Ö. Tunca, M. Molist (ed.) *Tell Amarna (Syrie). I. La période de Halaf*. Publications de la Mission Archéologique de l'Université de Liège en Syrie, 125–137, Albuquerque, University of New Mexico Press.
- Godon, M. (2010) De l'empreinte à l'outil, de la trace à la fonction: exemples d'outils de potier dans le Néolithique céramique centre-anatolien (7000–5500 BC cal.). *Bulletin de la Société préhistorique française* 107/4, 691–707.
- Gómez Bach, A. (2009) Las producciones cerámicas del Halaf Final en Siria: Tell Halula (Valle del Éufrates) y Tell Chagar Bazar (Valle del Khabur). In J. M. Córdoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of 5th International Congress on the Archaeology of the Ancient Near East, Madrid, April 2006, UAM II*, 113–122, Madrid, Universidad Autónoma de Madrid.
- Gómez Bach, A. (2011) *Caracterización Del producto cerámico en las comunidades neolíticas de mediados del VI milenio cal BC: el valle del Éufrates y el valle del Khabur en el Halaf Final*, PhD thesis, Barcelona, Universitat Autònoma de Barcelona.
- Gómez Bach, A., Calvo Del Castillo, H., Cruells, W., Strivay, D. and Molist, M. (2012) Black, red and white: characterizing Neolithic ceramic productions in middle Euphrates Valley. In *7th International Congress on the Archaeology of the Ancient Near East, British Museum, London 12–16 April 2010*, vol. 3, 527–536, London, British Museum.
- Hijara, I. (1997) *The Halaf period in Northern Mesopotamia*, Edubba 6, London, NABU Publications.
- Le Mièrre, M. (2000) L'occupation proto-Hassuna du HautKhabur occidental d'après la céramique. In B. Lyonnet (éd.), *Prospection archéologique du Haut Khabur occidental (Syrie du N.E.)*, Vol. 1, 127–149, Beyrouth, Institut Français du Proche-Orient.
- Mallowan, M. E. L. (1936) The excavations at Tall Chagar Bazar and an archaeological survey of the Habur Region, 1934–5. *Iraq* III, 1–86.
- Mallowan, M. E. L. (1937) The excavations at Tall Chagar Bazar and an Archaeological Survey of the Khabur Region: Second Campaign, 1936. *Iraq* IV, 91–177.
- Mallowan, M. E. L. (1946) Excavations in the Balikh valley, 1938. *Iraq* VIII, 111–162.

- Mallowan, M. E. L. (1947) Excavations at Brak and Chagar Bazar: Third campaign, 1939. *Iraq* IX, 1–266.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* II, 1–178.
- Merpert, N. Y. and Munchaev, R. M. (1993) Yarim Tepe III: The Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization: Soviet Excavations in Northern Iraq*, 163–205, Tuscon, University of Arizona Press.
- Molist, M. (ed.) (1996) *Tell Halula (Siria). Un yacimiento neolítico del valle medio del Éufrates. Campañas de 1991 y 1992*, Madrid, Ediciones del Ministerio de Educación y Ciencia.
- Molist, M. (2001) Halula, village néolithique en Syrie du Nord. In J. Guilaine (ed.) *Communautés villageoises du Proche Orient à l'Atlantique 8000–2000 avant notre ère*, 35–52, Paris, Editions Errance.
- Molist, M. (ed.) (2013) *Tell Halula: un poblado de los primeros agricultores en el valle del Éufrates, Siria. Tomo I y II*. Barcelona, Ministerio de Educación y Ciencia.
- Molist, M., Anfruns, J., Borrell, F., Buxó, R., Clop, X., Cruells, W., Faura, J. M., Ferrer, A., Gómez, A., Guerrero, E., Saña, M., Tornero, C. and Vincente, O. (2013) Tell Halula: new data on VII and VI millennia cal BC occupation in Upper Mesopotamia. In O. Nieuwenhuyse, R. Bernbeck, P. M. M.G. Akkermans and J. Rogarsch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 443–453, Turnhout, Brepols.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur Headwaters. In B. Lyonnet (ed.) *Prospection archéologique du Haut-Khabur Occidental (Syrie du Nord-Est)*, 151–260, Beyrut, Bibliothèque archéologique et historique CLV.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery: The Rise of Late Neolithic Ceramic Style on the Syrian and Northern Mesopotamian Plains*. Turnhout, Brepols.
- Oates, J. (1983) Ubaid Mesopotamia Reconsidered. In T. C. Young, P. E. L. Smith and P. Mortensen (eds) *The Illy Flanks and Beyond, Essays on the Prehistory of Southwestern Asia presented to R. J. Braidwood, 15 November 1982*, SAOC 36, 251–282, Chicago, Oriental Institute of Chicago.
- Robert, B. (2010) *Développement et disparition de la production céramique halafienne: implications techniques et sociales à partir d'études des cas*, PhD thesis, Lyon, Université Lyon II.
- Spataro, M. and Fletcher, A. (2010) Centralisation or Regional Identity in the Halaf Period? Examining interactions within fine painted ware production, *Paléorient* 36/2, 91–116.
- Tekin, H. (2009a) The Late Neolithic pottery tradition of Southeastern Anatolia and its vicinity. In J. M. Córdoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of 5th International Congress on the Archaeology of the Ancient Near East, Madrid, April 2006*, UAM III, 257–270, Madrid, Universidad Autónoma de Madrid.
- Tekin, H. (2009b) Hakemi Use: A newly established site dating to the Hassuna/Samarra period in Southeastern Anatolia. In J. M. Córdoba, M. Molist, M. C. Perez, I. Rubio and S. Martínez (eds) *Proceedings of 5th International Congress on the Archaeology of the Ancient Near East, Madrid, April 2006*, UAM III, 271–283, Madrid, Universidad Autónoma de Madrid.
- Tobler, A. J. (1950) *Excavations at Tepe Gawra, 2*, Philadelphia, University of Pennsylvania Press.
- Tonoike, Y. (2009) *Beyond Style: Petrographic Analysis of Dalma Ceramic in Two Regions of Iran*, PhD. thesis, New Haven, Yale University.
- Tonoike, Y. (2010) Beyond style: Petrographic Analysis of Dalma Ceramics in two Regions of Iran. In P. Matthiae and L. Romano *Proceedings of the 6th International Congress of the Archaeology of the Ancient Near East*, vol. 1, 557–566, Wiesbaden, Harrassowitz.
- Tonoike, Y. (2013) Beyond style: petrographic analysis of Dalma ceramics in two regions of Iran. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogarsch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 397–406, Turnhout, Belgium, Brepols.
- Tunca, Ö. and Baghdo, A. M. (eds) (2006) *Chagar Bazar (Syrie) I. Les Sondages Préhistoriques (1999–2001)*. Louvain/Paris/Dudley, Petters.
- Vitali, V. and Henrickson, E. F. (1987) The Dalma tradition: prehistoric inter-regional cultural integration in highland western Iran. *Paléorient* 36/2, 91–116.
- von Oppenheim, M. F. (1943) *Tell Halaf. Vol 1: Die Prähistorischen Funde: Bearbeitet von Hubert Schmidt*, Berlin, Walter de Gruyter.

The Painted Halaf pottery from Tell Tawila and the Tell Chuera region

Jörg Becker

Abstract

The excavations at Tell Tawila brought to light part of a Halaf village with its typical round buildings that can be dated through the pottery and calibrated radiocarbon dates between the Halaf Ia and IIa phases (c. 5900–5550 BC) after Campbell (1992). The great amount of painted pottery is mostly locally produced. The characteristics of vessel shape and their decorations show strong similarities to the neighbouring Balikh and Khabur regions. Variability in the preparation of the clay or the painting indicate that different persons and families were involved in the production of the painted pottery, but from the archaeological record it is difficult to distinguish such households. Strong similarities with neighbouring regions are more clearly visible in the pottery from Tell Tawila and the Tell Chuera region, which follows widely shared conventions (*i.e.* strong correlations of vessel shape and favoured decorations). From this perspective, it can be shown that the emphasis on familiarity with the Halaf cultural tradition was stronger than the emphasis on individuality.

Introduction

Before discussing the repertoire of painted Halaf pottery from Tell Tawila and the surrounding Tell Chuera region, I would like to reflect on some important studies from the last decades which have focused on the Halaf pottery style, the scale of their distribution and production, as well as their implications for the reconstruction of Halaf communities and their networks.

Strong similarities in the Halaf pottery were already observed long ago by Perkins (1949, 44), but in detail she called attention to regional variations. It must be kept in mind that she built her argument on the basis of a few sites and with the very selective publications available at the time (*cf.* Hrouda 1972–1975, 55f.). A more detailed picture emerged from the seventies onward with new archaeological data from different regions, combined with new methods or with new possibilities for scientific analysis. For example LeBlanc and Watson refer towards a strong stylistic homogeneity in their statistical analysis of seven Halaf sites from different regions in Upper Mesopotamia. Beside the great similarity in painting style, they also point to differences in the percentages of wares or local variations in prevalent vessel shapes between different sites. In their geographical distribution of the used motifs they came to strong similarities along an east–west axis, from Arpachiyah, via Tell Halaf to Tell Turlu, contradicting Perkins' proposed distinction into an eastern and a western group of the Halaf culture. "... Eighty to ninety percent of the sherds from any of these sites would not appear out of place in the collections from any other site ...") (LeBlanc and Watson 1973, 131). In explanation, Watson and LeBlanc saw the painted pottery as part of exchange networks and imitations of luxury products and the Halaf society characterized through the change from a tribal organisation to a chiefdom level (Watson and LeBlanc 1973; *cf.* Redman 1978, 199) and see critical to that view (Hole 2013).

More attention to regional variations was again paid by Davidson, who distinguished between the Mosul region, Sinjar region, Khabur headwaters, Balikh valley and the Euphrates valley. His study was enriched through scientific analyses of Halaf pottery from different sites and wadis using neutron activation analyses. Together with McKerrell, and following the lead of Watson and LeBlanc, they suggested that an intensive exchange of pottery products was responsible for the strong similarities in the Halaf horizon. Sites like Arpachiyah, Chagar Bazar or Tell Halaf were interpreted as "production centres" on a regional level. These regional centers supplied the smaller, "satellite" sites in their vicinity with painted vessels, but also exchanged ceramics between them to a lesser degree (Davidson 1977, 297–336 and 349–395, appex. i and ii; Davidson and McKerrell 1976; 1980; *cf.* Watson 1983, 240f.).

More recently both the validity of that data and its interpretation have been questioned. When the original data were subjected to more sophisticated statistics, it was found that even if pottery vessels were part of exchange networks, the suggested scenario found no support

(Galbraith and Roaf 2001; *cf.* Akkermans and Schwartz 2003, 138 or Nieuwenhuyse 2010, 98). Similarly, the analysis of Halaf pottery from Tell Tawila and other sites of the Wadi Hamar region as well as from Tell Halaf, seems to indicate that trade with painted pottery was practised, but on a very limited scale (just one from 84 samples, see below). The earlier work has greatly overestimated the extent of ceramic exchange (*cf.* Hole 2013, 77f, 85).

At a broader level, on the basis of new archaeological data from the last decades, a very different conceptualization of the society and social organization during the Halaf period has emerged. No organization on a chiefdom level can be reconstructed from the settlements and their structures, nor from the distribution of small finds or pottery, nor from the burial record. For example, as Akkermans showed in his comprehensive studies (Akkermans 1993; 2013), most of the arguments concerning Halaf chiefdoms were simplistic and based on just a small set of data. Instead he argued that the society of the Halaf period was more or less a “non-hierarchical” and “tribal” society, organized in small-scaled, segmented families or kin related groups, living in spatially segregated occupations at (very great) distances of each other. The subsistence and related patterns of social organization was seen along two lines: (1) large and permanently occupied, agricultural settlements and (2) short-term, basically pastoral sites with a strong mobile aspect. Reciprocal relations between both settlement structures, which can be found often nearby, can be assumed, for example in terms of cooperation and exchange or participation in subsistence and products, marriage, communal feasts or rituals (Akkermans 1993, 288–293 and 321–323; 2013, 69–73).

Concerning the production of Halaf pottery, most scholars today assume that the vessels were made seasonally at a household level and were gendered products made by women (Forest 2013; *cf.* Nieuwenhuyse 2007, 219). Against the backdrop of these small settlements, however, the communities could not survive as autonomous, demographic entities. This leads inevitably to marriages between members of (neighbouring) villages. In such a scenario, it was further supposed, a mother gave her motif-treasure to her daughter.

Such a picture was drawn, for example, by Bernbeck in his study of the organization of pottery production. For the Samarra culture he assumed that the organization was patrilocal and patrilinear, whereas for the Hassuna culture he argued for matrilineal and matrilinear structures. Although he did not mention the Halaf culture explicitly

there, in another contribution he argued for strong similarities between the Hassuna and the Halaf cultures; therefore we may assume that, in Bernbeck's opinion, the Halaf culture was also organized in a matrilinear and matrilocal way (Bernbeck 1994, 39–50, 274 and 329–335; 1995, 40). The more or less homogeneous appearance of the painted Halaf pottery, not only at Tell Tawila but also in the Wadi Hamar region, speaks for a patrilocal and patrilinear social structure (*cf.* Charvát 2002; Nieuwenhuys 2007, 219). Furthermore, ethnological studies suggest that in seasonal production environments on a household level both men and women were participating and that such groups seem to be organized as parts of families or as parts of kinship related groups (Nieuwenhuys 2007, 219). A similar characterization of the Halaf society as a horizontal egalitarian society was given by Frangipane (2007, 154–164; 2013).

Against such a reconstructed socio-economic background of a primary local production practiced at a household level, the question arose if we should expect greater stylistic variations at least on a regional level, *i.e.* from site to site. The sketched picture above of the Halaf society, organized in small families or kin related groups, and the great mobility of such groups alone could hardly explain the strong stylistic similarities for the Halaf pottery within the context of their wide distribution. Such a view does not neglect regional variabilities which are clearly visible (*cf.* Mallowan and Cruikshank-Rose 1935; Davidson 1977; Hijara 1997; Nieuwenhuys 2007; Castro-Gessner 2013; Hole 2013), but has its focus more on an intra-site and regional level as part of “regional ceramic dialects” as expressed by Hole (2013).

The Wadi Hamar-Survey and the excavations at Tell Tawila

Between 1997–2000 and 2008–2009 the Wadi Hamar-Survey in the vicinity of Tell Chuera – *i.e.* between Balikh and Khabur – was carried out under the direction of JanWaalke Meyer (University of Frankfurt am Main) in an area of c. 650 km². The main goal is the reconstruction of the settlement systems through the ages from the early Neolithic to the early Islamic periods (Meyer *et al.* 2001, 222f. Abb. 17; Becker 2004; Kudlek 2006).

The Halaf period during the early sixth millennium BC is the first stage, during which an intensive settlement activity for the Tell Chuera region can be ascertained. About 20 sites could be found dating in general to that period (Fig. 5.1). In most cases the sites are small hamlets (<1 ha), occupied for a short time, some of them may

have just been used as seasonal stations, others resettled after some time. Only the sites of Tell Chuera, Tell Tawila and Ajila-South represent some larger sites (small villages, >1 ha) on which people lived continuously over some centuries. In general this two tier-settlement structure, with a few small villages and a lot of short lived hamlets and stations is typical for the late Neolithic Halaf period and is well attested in the neighbouring Balikh and Khabur regions for example for the Balikh area see Akkermans (1993, 138–203, 168–186, 191–203) and for the Khabur region see Nieuwenhuys (2000, 180–194).

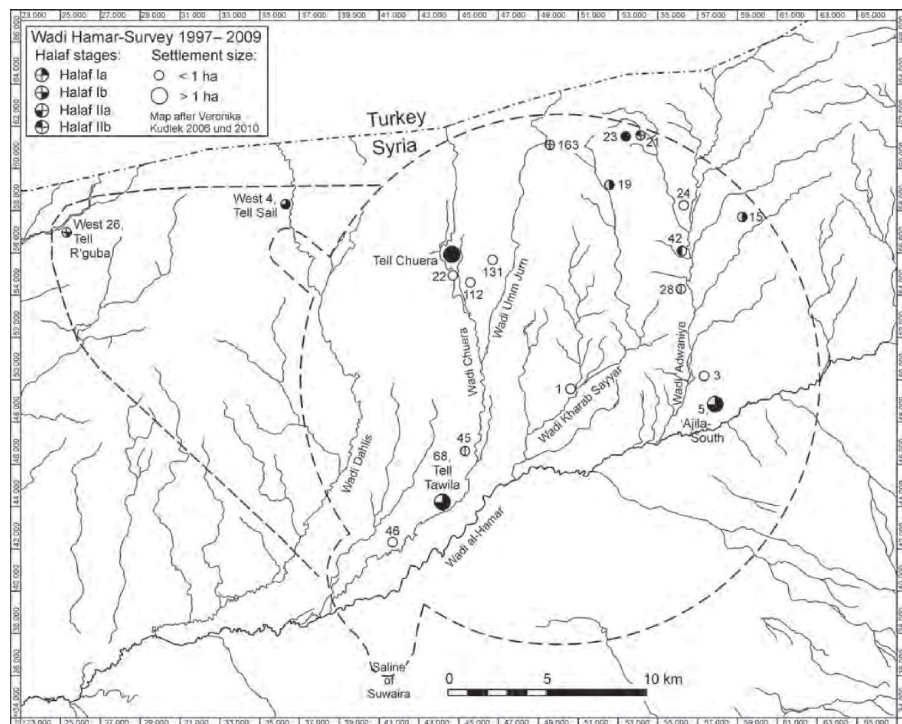


Figure 5.1. Halaf sites from the Wadi Hamar-Survey around Tell Chuera. A grey filling inside the circles denote archaeological sites at which Halaf phases are poorly documented (based on archaeological survey); white circles stand for chronologically indeterminable Halaf sherds.

In order to clarify the chronological frame, to get insights into the settlement structure and to answer questions relating to subsistence strategies, the site of Tell Tawila was the focus of archaeological excavations between 2005 and 2006 under the direction of the author (cf. Becker *et al.* 2007) a detailed analysis will be published (Becker in prep.). The site of Tell Tawila lies 12 km south of Tell Chuera on the western side of the Wadi Chuera and close to the Wadi al-Hamar, an eastern tributary of the Balikh (Fig. 5.1). Today this area represents the southern border of the region in which rain-fed agriculture is still

possible. Tell Tawila has a maximum size of C. 300 × 400 M. and is 9 m high (Fig. 5.2). From the pottery distribution it became clear that Tell Tawila was populated during several Halaf phases. The maximum size reached about 2 ha in the early sixth millennium BC and concentrated on the central part of that site. In difference to the great quantity of Halaf pottery, distributed over greater parts in Tell Tawila, also a small amount of Ubaid pottery could be found at Tell Tawila. Our investigations also tried to detect some building structures of that small Ubaid hamlet, which followed the Halaf occupation after a hiatus of c. 800 years during the early fifth millennium BC. But unfortunately this Ubaid hamlet is located below the modern occupation on the central part of Tell Tawila (Becker *et al.* 2007, 215, 243).

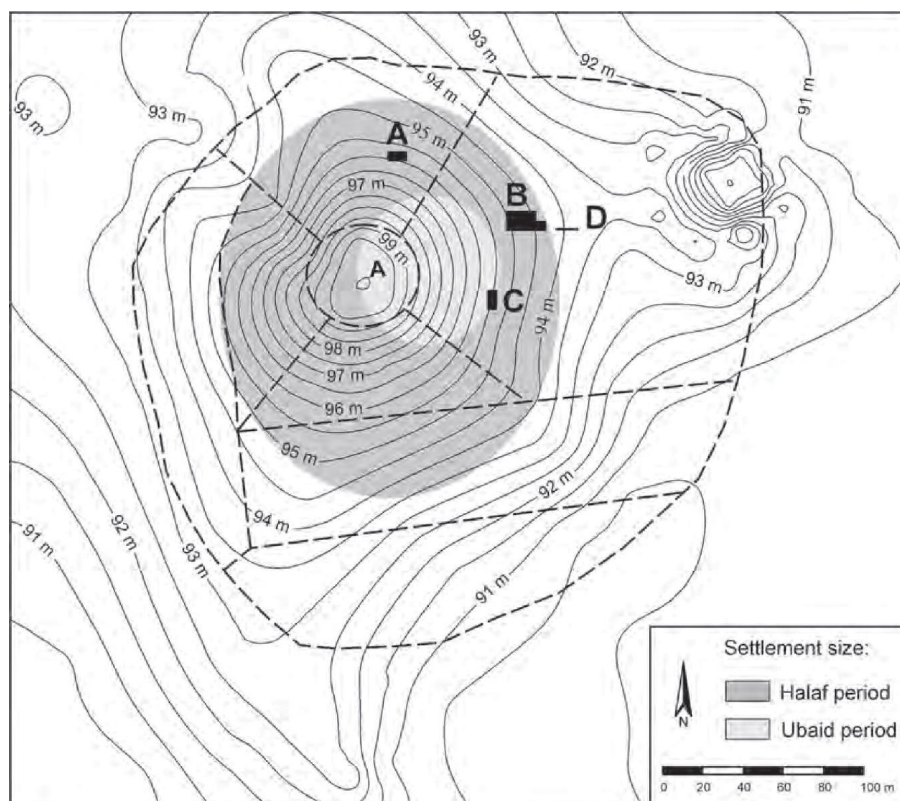


Figure 5.2. Tell Tawila. Topographic map with excavated areas.

The Halaf layers are the oldest settlement at the site, which was erected on a small, natural hillside. During the excavations between 2005 and 2006 Halaf architecture could be uncovered in different excavation areas (A–D) (Fig. 5.2). The Halaf levels, which can be separated into four or five building levels with several sub-phases,

have a thickness of about 2 m. The foundation at Tell Tawila in its oldest phase may have been a seasonally occupied camp site for the hunting of onager and gazelles, but shortly became also attractive as a permanent settlement. For the traces of a similar seasonal camp site in the oldest phase IV at Fıstıklı Höyük see Bernbeck and Pollock (2003, 23).

Tell Tawila represents an early example of mixed subsistence during the Halaf period, comparable to sites like Tell Umm Qseir, Khirbet esh-Shenef or Shams ed-Din and has its roots in older Neolithic traditions (for example at Umm Dabbaghiyah) (*cf.* Akkermans 1993, 264–268; Akkermans and Wittmann 1993, 162f.; Akkermans and Schwartz 2003, 126–131). This subsistence consists on the one hand of agriculture and animal husbandry and on the other hand of hunting wild animals. Beside the evidence from the animal bones, some arrowheads, sling missiles and more than 300 ceramic scrapers are clear indicators for the importance of hunting at Tell Tawila (Becker *et al.* 2007, 243, 263, Abb. 25). Ceramic scrapers for the treatment of the animal hides are the greatest group of small finds, and can be found for example on sites like Tell Umm Qseir or Yarim Tepe II and III in greater quantities; for the interpretation of that ceramic scrapers for the treatment of organic material at Umm Qseir see Tsuneki and Miyake (1998, 112–115, fig. 49), and for the treatment of hides at Yarim Tepe II and III see Merpert and Munchaev (1993a, 152, fig. 8.21; 1993b, 197, fig. 9.25:3). Whereas hunting reaches in the oldest levels at Tell Tawila about 15% (Halaf Ia/b), it is increasing during the younger levels to c. 30% (Halaf IIa) (*cf.* Vila 2007, 253–258 for the animal bones; and compare Helms 2007, 250f. for lithic arrowheads). In contrast to the above mentioned sites, which are seen as specialized hunter camps or intermediate trading outposts between hunters and sedentary agricultural communities (*cf.* Akkermans and Wittmann 1993, 163), at Tell Tawila hunting played an important role in subsistence, but was never dominant. The importance for the hunting of wild animals can also be seen at Ajila-South, where ceramic scrapers were found during the survey. Ajila-South represents – like Tell Tawila – a Halaf village of the early sixth millennium BC and also lies in the southern border of the rain-fed area, so close to the Wadi Hamar and c. 15 km north-east from Tell Tawila.

At Tell Tawila the best examples from the architecture come from area B with several characteristic round buildings (*tholoi*). In level B 4 (Halaf IIa) two round buildings are enclosed by rectangular walls, and can be considered as part of a household with space for living and

working (Fig. 5.3). In one of these buildings (*tholos* 3) a double-oven was found as part of a working area and was renewed several times. It is evident, that such single chamber updraught kilns were used for special purposes, maybe for the local production of the pottery (Becker *et al.* 2007, 226, 228, Abb. 7–8, 11–12), comparisons for such kilns in the light of pottery production can be found in Hansen Streily (2001). Four calibrated radiocarbon dates come from area B and give a time range from the Halaf Ia to the end of the Halaf IIa phases, so for a period of about 250–300 years during the early sixth millennium BC, *i.e.* from about 5950–5550 BC (*cf.* Cruells and Nieuwenhuyse 2004, tab. 2).

The comparison of the local stratigraphies in the different excavation areas and the distribution of vessel shapes and their decorations confirm that these areas were occupied simultaneously and are part of one Halaf village. The settlement history begins during the stage Halaf Ia – perhaps in the last decades of this period – but from the point of the pottery the stages Halaf Ib and IIa are primarily represented. In difference to the preliminary report in which, on the basis of some bi-chrome painted sherds, a date into the Halaf IIb stage could not be excluded for the youngest levels (Becker *et al.* 2007, 238), it is now clear that the latest Halaf levels belong to the phase Halaf IIa. This seems to be true for the pottery of the areas A and B, which show strong similarities and can be dated in the earliest levels to the end of stage Halaf Ia and mainly the stage Halaf Ib. The pottery from area C, on the other hand, can be correlated with the younger levels of the areas A and B, starting during the stage Halaf Ib and leading into Halaf IIa. So, after the first settlement activities in the northern part (areas A and B), an extension into the central and southern part (area C) may have taken place. From the above mentioned maximum size of 2 ha, it can be assumed that *c.* a dozen of families with a maximum of about 100 persons lived at Tell Tawila, and were organized in small, kinship related groups, indicating settlement structures which are well documented in the neighbouring Balikh and Khabur areas (*cf.* Akkermans 1993, 165–167; Akkermans *et al.* 2006, 151f., fig. 2, 126; Nieuwenhuyse 2007, 36–44).

Halaf pottery from Tell Tawila

From the excavations 27,254 Halaf sherds were collected. It is of no surprise for a Halaf site in north-eastern Syria that the Halaf pottery at Tell Tawila is dominated by monochrome painted Halaf Fine Ware, averaging about 85% throughout most of the Halaf levels (*n* = 23,908 sherds). The proportion of the mineral tempered kitchen ware,

however, reaches about 15% (n = 3299 sherds) (Becker *et al.* 2007, 236f. Abb. 18) and finds parallels, for example, at Damishliyya (Akkermans 1993, 38 with 16%) or at Tell Aqab (Davidson 1977, 156f. with 14%), both mentioned here as parallels for the stage Halaf IIa. The two other wares present at Tell Tawila, *i.e.* some examples of bi-chrome painted Halaf Fine Ware (n = 26) or Halaf Fine Ware with plastic decoration (n = 21) are only found in minimal quantities in the later levels and fit well into the Halaf IIa period (*Middle Halaf*) (Fig. 5.4). These very few samples of bi-chrome painted sherds have good parallels in Tell Aqab or Arpachiyah during the stage Halaf IIa, but are more common in Halaf IIB and best known from the *burnt house* at Arpachiyah, but never includes more than 5% of the painted pottery assemblage (Davidson 1977, 38, 55 for Arpachiyah 116, 131 for Tell Aqab; *cf.* Campbell 1992, 72; Nieuwenhuyse 2000, 167f.).

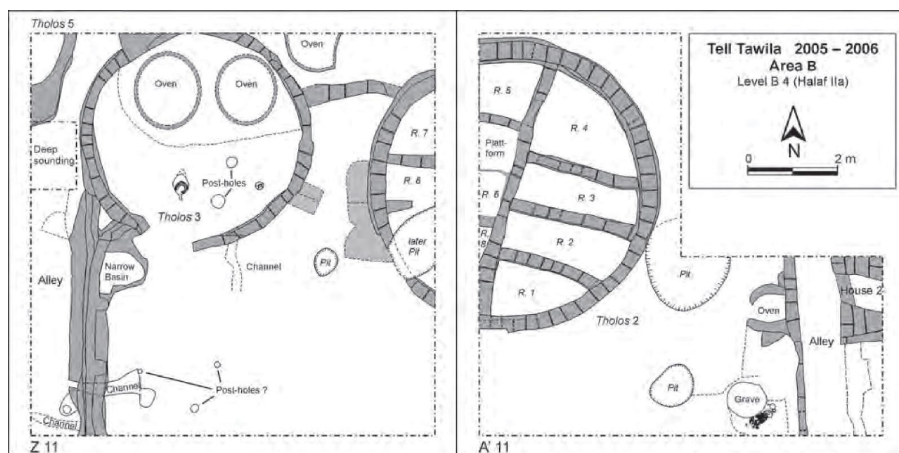


Figure 5.3. Plan of level B 4 at Tell Tawila (Halaf IIa).

The vessel shapes are grouped into a hierarchical system of classes, types and variants. In this contribution only the characteristics of the pottery in terms of their chronology shall be discussed, and the mentioned comparisons are restricted to a few selected sites, mainly Arpachiyah and Tell Aqab. For a detailed discussion see Becker (in prep.). For further discussions about Halaf vessel shapes see for example Davidson (1977), Campbell (1992) or Nieuwenhuyse (2000, 169–180). In general, 111 complete or reconstructable vessels are present at Tell Tawila. Most of them are small vessels, belonging to the classes of cups, bowls, small plates, some lids and a few goblets. Into the class of closed vessels just a few small pots and jars are represented, but larger vessels did not preserve as complete profiles. A total of 33 distinct types have been identified, of which Figure 5.5 shows just the 14 most characteristic shapes. The quantity and time

scale of these selected shapes from Tell Tawila into the framework of the Halaf period are shadowed in light grey. The absolute numbers of the samples are added on the right. For the vessel classes German abbreviations are used (cf. Becker in prep.): “N” = Napf (cup), “S” = Schale (bowl) and “T” = Topf (pots and jars).

Typical shapes are, for example, simple cups and bowls with flaring necks as a usual form of the stages Halaf Ia/b (N 1 and S 1) (cf. Davidson 1977, 30–32, 39f., 57, 69, Tab. for Arpachiyah; Davidson 1977, 111f., 116, 134f., 150 for Tell Aqab (form 1); Campbell 1992, 69f.). They were replaced in the later levels more and more through convex-sided cups and bowls (N 2 and S 2), as well as through shallow bowls (S 3a/b) (cf. Davidson 1977, 33f., 41–43 (form 3) and 61f. (form 10) for Arpachiyah and Davidson 1977, 113f., 117–119, 135–137 and 150f. (form 3), 122f., 139f. and 151 (form 7), 124, 140 (form 10) and 127, 143f. and 153 (form 16) for Tell Aqab). The most frequent vessel shape from the Halaf levels at Tell Tawila are the developed variants of the cream bowl with carination along the middle or upper part of the profile, so S-curved bowls with long (S 7b) or short rim (S 7c), as well as the cup-variant (N 4 = *Trichterrandbecher*). Earlier cream bowls (S 7a), characteristic for the Halaf Ia/b stages with their carination at the lower part of the vessel, were attested with just a few examples. But for the small quantity, it must be kept in mind that as opposed to the later levels, which belong to the stage Halaf IIa, the oldest levels at Tell Tawila have been uncovered on only a limited scale. For the early cream bowl (S 7a) compare Davidson’s form 2 at Arpachiyah and Tell Aqab (Davidson 1977, 32f. and 41, 112f.; cf. Nieuwenhuyse 2000, 173f., shape 1121–1122). The younger shapes S 7b and S 7c can be compared with form 18 by Davidson (1977, 127–129; Nieuwenhuyse 2000, 174 with shape 1123).

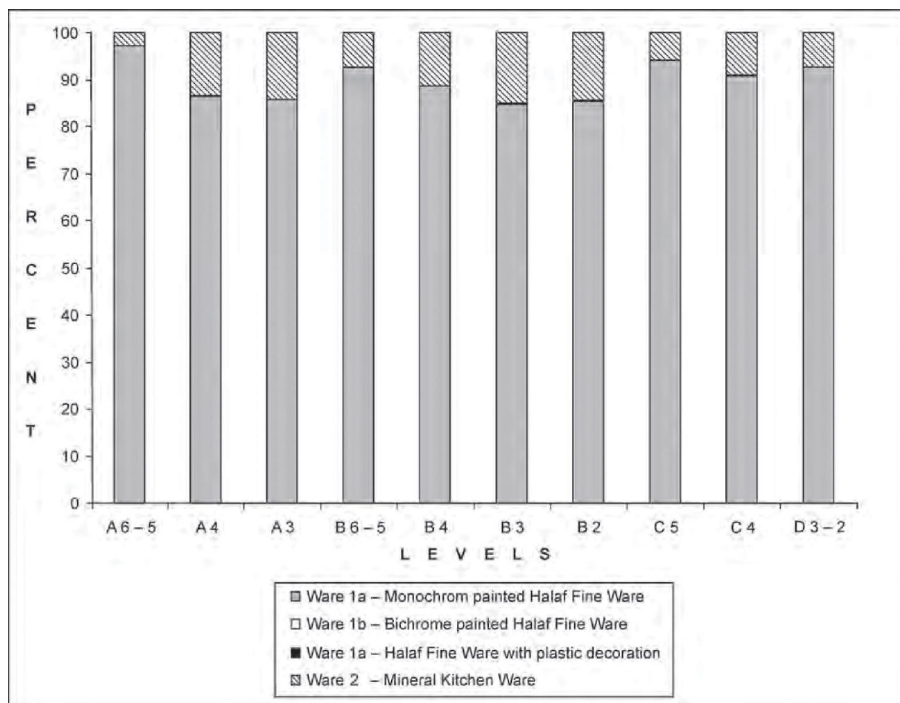


Figure 5.4. Distribution of Halaf wares at Tell Tawila.

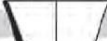
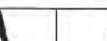
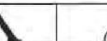
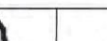
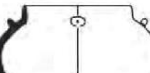
	Proto-Halaf	Halaf Ia	Halaf Ib	Halaf IIa	Halaf IIb	HUT
Cal. BC	6100	5950	5850	5700	5550	5300
C u p s			N 1		(n = 109)	
			N 2		(n = 49)	
			N 4		(n = 55)	
B o w l s			S 1		(n = 252)	
			S 2		(n = 69)	
			S 3a/b		(n = 164)	
			S 7a		(n = 9)	
			S 7b/c		(n = 665)	
P o t s & J a r s			T 1		(n = 140)	
			T 4		(n = 107)	
			T 6		(n = 72)	
			T 7		(n = 280)	
			T 8		(n = 381)	
			T 9		(n = 105)	

Figure 5.5. Characteristic vessel shapes from Tell Tawila.

Within the class of closed vessels, jars with short (T 7), long (T 8) or wide-mouthed and long necks (T 9) are very prominent. In chronological terms jars with long flaring necks (T 8) are typical for the older stages of the Halaf period and were replaced through time through jars with short, flaring necks (T 7). For the older shape T 8 compare Davidson's form 4 at Arpachiyah and Tell Aqab (1977, 34f. and 43f., 114, 119–121 and 137). For the younger shape T 6 see Davidson's form 5 (1977, 45f. at Arpachiyah, or 121f. and 137 for Tell Aqab). Also squat jars with short vertical necks (T 4) and on the shoulder often with four vertical pierced lugs are well represented

since the Halaf IIa period. Such jars are identical with the “*Schnurösenbüchse*” of Tell Halaf (Schmidt 1943, 48 and 50 Taf. XIII: 1–7; cf. Nieuwenhuyse 2000, 176 (shape 1305), or Davidson 1977, 64f. for Arpachyiah and Davidson 1977, 125f., 141f. and 152 for Tell Aqab with his form 13). Other frequent vessel types are angle-necked jars (T 6) and hole-mouthed pots (T 1). While angle-necked jars are present throughout the different stages of the Halaf period, hole-mouth pots are the most prominent cooking pot within the kitchen ware. This shape increases chronologically within the Halaf Fine Ware as well, during stages Halaf IIa/b (cf. Nieuwenhuyse 2000, 174f., shape 1201; and compare Davidson 1977, 152f. for Tell Aqab with his form 17).

Characteristic motifs and their correlations with vessel shapes

In the painted pottery from Tell Tawila and the Wadi Hamar region all together 662 motifs or combinations can be distinguished. They were categorized into 13 groups A–M, most of them with subgroups. For similar motif classifications see for example Gustavson-Gaube (1981), Campbell (1992, 230, Appendix B and 271–279: fig. B6 – List of motifs), or Nieuwenhuyse (2007); see also Watson and LeBlanc (1973, 120 fig. 3, 122f.) or Davidson (1977, tab. 2–5), which concentrate on the most important motifs, whereas von Wickedede (1986) used the system of the crystallography to describe the arrangements of motifs; cf. also Bernbeck (2008).

At Tell Tawila these groups begin with simple horizontal lines, waves or bands (group A), vertical- and complex motifs (groups B and C), zigzags and triangles (group D), lozenges (group E), hatchings (group F), dots (group H), angles (group I), plants (group J) to animals and a single human representation (group K). The few samples of group L represent band-motifs of Ubaid pottery and in group M indeterminable motifs are grouped. In general in Tawila and at other Halaf sites too, the design is mostly geometric, but a few figurative motifs (primarily *bucrania*) do occur (see Erdalkiran this vol., and cf. also Perkins 1949, 16–45, fig. 2; Dabbagh 1966, 24f. pl. xiv–xix, nos 220–360; or Hrouda 1972–75, 55f.).

Figure 5.6 shows the previously selected typical 14 vessel shapes and their most significant motif-groups. Significant motif-groups with high sample values are given in bold letters, motif-groups with low samples values are printed in normal and smaller letters. The decoration show at first glance a wide range of motifs present, but a lot of them occur just once. On the other hand, strong correlations

between the vessel shape and the decoration can be observed (also Hole this vol.).

A selection of typical motifs is shown in [Figures 5.7](#) and [5.8](#) for each of the 14 characteristic vessel shapes.

Form N 1: A simple decoration can be found on small cups very frequently. The outside painting is mostly based on one or two horizontal bands. Along the inner rim another band can be seen, as often combined below with one to three wavy lines. Other exterior motifs are made through cross-hatchings in different variants, as well as lozenges or triangles present in small quantities ([Fig. 5.7, 1–7](#)).

Form N 2: A similar tendency is found in the group of convex-sided cups and mainly a simple decoration with horizontal motifs was preferred. Very often just a simple band outside and inside are found along the rim. On the interior below that band one or more wavy lines might have been added. All other motifs, for example angles, are found in smaller quantities ([Fig. 5.7, 8–10](#)).

Form N 4: On the sinus-sided cups (*Trichterrandbecher*) we see a slightly greater variety of motifs, but on the outside a decoration of simple horizontal motifs are again dominant. Similar to the sinus-sided bowls (form S 7b/c, see below) rows of *bucrania* can be found very often on the outside. The greater variety of motifs can be seen mainly on the interior, with simple, horizontal bands or wavy lines, cross-hatchings, dotted motifs or angles for example ([Fig. 5.7, 11–16](#)).

Motifs	A 1	A 2	A 3	B 1	B 2	C 1	C 3	D 1	D 2	E 1	E 3	F 2	H 2	H 5	I 1	K 1	Others
Forms																	
N 1	39	1	4	1	1	—	2	3	—	7	3	11	5	—	3	—	18
	45	—	22	3	—	1	—	—	4	—	—	5	1	—	—	—	5
N 2	19	—	—	1	—	1	—	1	—	1	—	2	1	—	3	1	11
	15	3	7	2	—	—	—	—	1	—	—	2	—	—	—	—	1
N 4	16	—	—	—	—	—	4	2	—	—	1	2	3	—	2	14	6
	5	2	7	3	—	2	1	—	2	—	2	5	5	—	4	—	7
S 1	110	—	7	2	1	3	8	5	1	10	1	14	2	—	—	6	39
	86	6	51	6	—	16	3	—	8	1	2	9	1	—	—	—	22
S 2	40	—	1	1	—	—	—	—	—	3	—	1	—	—	—	1	8
	18	2	14	3	—	1	—	—	1	—	1	4	—	—	—	—	1
S 3	98	—	—	—	1	1	—	—	—	—	—	1	—	—	—	1	16
	58	2	40	1	—	—	1	3	3	2	1	10	—	—	—	—	12
S 7a	3	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	4
	—	—	—	—	2	2	1	1	—	—	—	—	—	—	—	—	2
S 7 b/c	461	2	5	—	—	1	12	1	—	4	2	1	5	—	2	98	37
	56	38	266	11	2	22	2	2	10	8	6	63	3	—	2	3	34
T 1	41	1	2	—	3	—	2	10	—	2	2	11	3	—	3	—	14
	38	1	3	3	—	1	—	—	—	—	—	—	—	—	—	—	5
T 4	23	1	2	—	1	—	15	—	—	1	—	1	1	2	1	—	7
	5	12	—	3	—	—	—	1	—	—	—	2	—	—	—	—	3
T 6	48	—	2	—	—	2	2	2	—	—	1	4	1	—	1	1	5
	18	6	11	1	—	6	—	2	—	—	—	6	—	—	1	—	10
T 7	104	5	12	8	10	3	1	3	3	4	10	10	14	1	13	2	47
	46	5	22	10	1	3	2	2	5	1	—	114	2	—	1	—	15
T 8	220	1	7	2	1	5	2	7	—	1	7	4	16	13	—	4	50
	145	7	34	2	—	2	—	1	—	1	—	78	1	—	—	—	12
T 9	63	—	1	—	1	—	—	—	1	—	—	1	—	—	—	1	5
	44	2	10	—	—	1	—	—	1	—	—	9	—	—	—	—	2

A 1 – simple lines or bands

A 2 – waves

A 3 – simple lines and waves

B 1 – simple vertical motifs

B 2 – vertical lines combined with some horizontal lines

C 1 – horizontal lines with short vertical lines

C 3 – motifs in metope fields

D 1 – zigzags

D 2 – triangles

E 1 – simple lozenges

E 3 – complex lozenges

F 2 – cross hatchings

H 2 – dots and lines

H 5 – dotted circles

I 1 – rows of angles

K 1 – bucrania

Figure 5.6. Correlation of the characteristic vessel forms and motif-groups in the Halaf pottery from Tell Tawila (for each form the upper line show the outside motif-groups, the lower line show the inside motif-groups).

Form S 1: Straight sided bowls also show a wide range of motifs, at least on the exterior, but again simple horizontal motifs are preferred. In smaller quantities simple lines and waves, motifs in *metopes*, simple lozenges or cross-hatchings do occur on the exterior. The interior is dominated by simple horizontal bands or simple lines and waves. Less frequent are horizontal and vertical line-combinations, triangles or cross-hatchings (Fig. 5.7, 17–26).

Form S 2: Like the convex-sided cups, also the convex-sided bowls show a stronger emphasis towards simple band motifs, consisting of one or two bands along the exterior and one band or a line with waves along in the interior rim. All other motifs, for example cross-hatched lozenges, occur just in a few cases (Fig. 5.7, 27–31).

Form S 3a/b: A strong preference of simple motifs shows also the group of flat bowls. The exterior and interior decoration consists in many cases of one simple horizontal band or the surface is completely painted on one or both sides. In other cases the interior can again be painted with some wavy lines below a horizontal band, or in smaller quantities cross-hatchings can be favoured (Fig. 5.7, 32–35).

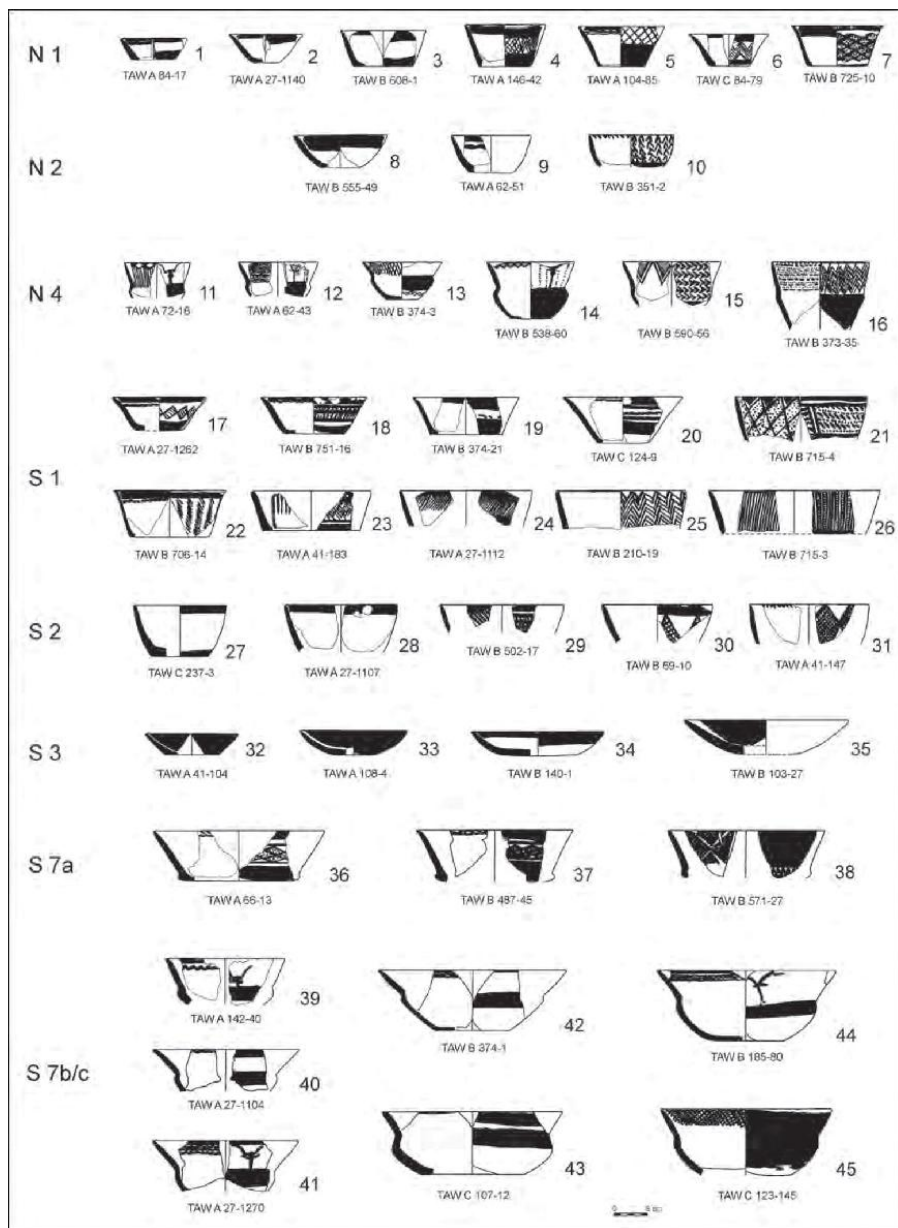


Figure 5.7. Characteristic vessels shapes with typical motifs at Tell Tawila.

Form S 7a: No preference can be deduced for the early cream bowls due to their very small sample size (Fig. 5.7, 36–38). On two vessels (Fig. 5.7, 36 and 37), which come from different areas and levels (area A and B), but show nearly identical exterior and interior motifs, the question arose as to whether one is the copy of the other – a question that will be discussed at the end of this contribution.

Form S 7b/c: A strong correlation between vessel shape and decoration can be seen for example on the most frequent vessel shape, the later cream bowl variants. There is just little variation of the outer and inner part. The outside was mainly decorated through a horizontal band along the carination. Along the outer rim another band could be added and the zone in between often show a row of *bucrania* (cf. shape N 4, see above). Along the inner rim the decoration differs mostly between one to three wavy lines under a horizontal band. Another well represented group of inner motifs are cross-hatchings. Other motifs outside or inside occur only in minor quantities (Fig. 5.7, 39–45).

Form T 1: On hole-mouth pots again simple motifs dominate, mostly made through one or two very broad bands. In smaller quantities zigzags or cross-hatchings are found, while other motifs, for example lozenges or dots and lines were used in just a few cases. The decoration along the interior rim consists nearly exclusively of a simple horizontal line or band (Fig. 5.8, 1–7).

Form T 4: Squat jars with short, vertical necks (*Schnurösenbüchse*) shows on better preserved samples a high proportion of motifs ordered in *metopes*. Such a decoration pattern is perhaps employed because the shoulder mostly bears four vertical pierced lugs (cf. Schmidt 1943, 50 taf. xiii:1.3–5.11–15; lxxii:6; lxxiii:1–2). Just on samples, where only the upper part is preserved, simple horizontal motifs seem to dominate again here (Fig. 5.8, 8–11).

Form T 6: On angle-necked jars we find again the dominant group of simple horizontal motifs. Just on a few samples motifs like cross-hatchings, zigzags, horizontal and vertical line combinations or lozenges do occur. Along the interior rim we find mostly simple horizontal lines and bands, partly combined with wavy lines or cross-hatchings (Fig. 5.8, 12–15).

Form T 7: Jars with short flaring neck shows a greater variation on the exterior decoration. Beside simple horizontal motifs due to their state of preservation, simple lines and waves, vertical and horizontal line combinations, complex lozenges, cross-hatchings,

dots and lines or rows of angles are frequently used. The exterior decoration along the short rim could partly break off for example from the different decoration along the globular body through short vertical lines. In other cases one uniform decoration over the complete exterior surface can be seen. In difference to that variation on the exterior, the interior rim is mainly decorated through cross-hatchings or simple horizontal bands; other simple horizontal motifs occur just in minor quantities (Fig. 5.8, 16–27).

Form T 8: For jars with long flaring neck we have to keep in mind that mainly the upper part, so the long necks and parts of the shoulder are preserved and very few complete profiles are available. The apparently clear dominance of simple horizontal motifs on the exterior of that vessel shape should be critically considered with that in mind (cf. Fig. 5.6). The dominance of simple exterior motifs (for example one single or two broad bands) seems just to be true just for the necks itself. In other cases different motifs were used and seem to continue over – at least – the upper part of the vessels body. In general a wider range of used motifs is assumed for that vessel shape, similar to the straight sided bowls (form S 1) or the jars with short flaring neck (form T 7). To these belongs some dots and lines or dotted circles and in minor quantities for example triangles or complex lozenges. Just for the decoration on the interior rim the preference of simple horizontal lines or bands, partly combined with wavy lines or the great group of cross-hatchings holds true (Fig. 5.8, 28–35).

Form T 9: For wide-mouthed jars with long flaring necks out off the state of preservation the same restrictions has to be made as on form T 8 (see above). An apparent dominance of simple horizontal motifs, made of one or two broad bands, applies just to the long neck, whereas for the motifs on the globular body no clear conclusion can be made. Along the interior rim simple horizontal lines and bands, partly combined with wavy lines are preferred (Fig. 5.8, 36–38).

We draw special attention, finally, to some examples of figurative compositions. Such figurative scenes represent only a small part of the bulk, whereas the majority of painted decoration is made of geometrical motifs. Apart from the well documented *bucrania* in their different variations, as well as rows of stylized human representations, i.e. *dancing ladies* or *Reigen-Darstellungen*, cf. Fig. 5.7, 11 as typical design motifs on Samarra pottery (cf. Schmidt 1943, 65 (with note 2)

and 67 Abb. 55 Taf. x:15 = lxix:5; xc:14–16 and xci:1; Nieuwenhuyse 2007, 198f. tab. 7.8.10 (no. 526) and 201 with fig. 7.9.4 (lower part); or Nieuwenhuyse 2009, 697), other figurative representations, such as some other animals or plants, occur just in few examples on the Halaf pottery from Tell Tawila.

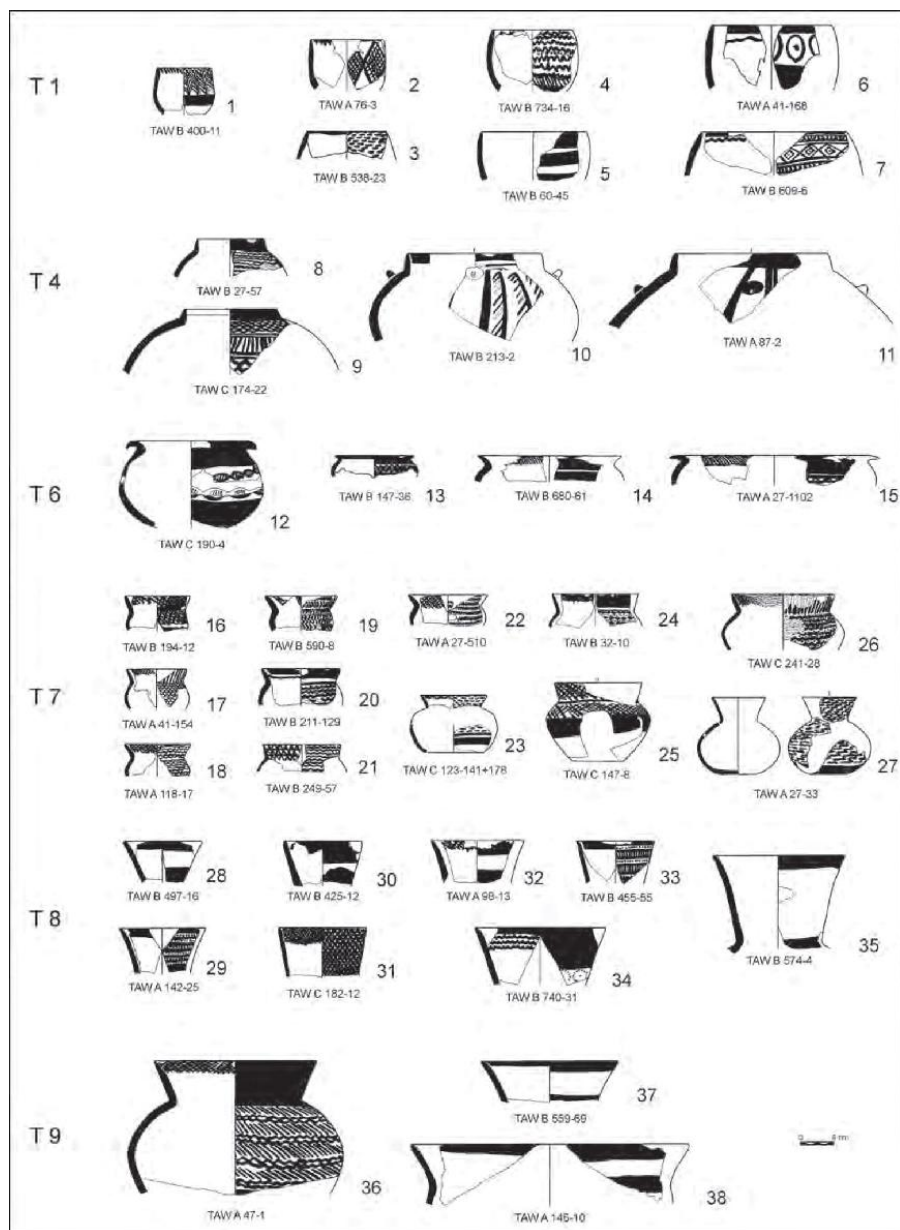


Figure 5.8. Characteristic vessels shapes with typical motifs at Tell Tawila.

To that small group belong representations of birds found on the

poorly represented shape of angle-necked jars with vertical or slightly inward oriented neck (form T 2, $n = 13$) (cf. Nieuwenhuyse 2000, 175f. with shape 1302), on which just two samples show some rows of birds. The different workmanship of the potters leads in one case to a well executed representation of some rows of birds; in the other case we see a slightly unskilled painting (Fig. 5.9, 1–2 and Fig. 5.10, 1–2). Such differences in detail, for example in the usage of dotted motifs or cruxes, show that different persons were involved into the production of Halaf pottery at Tawila. At the same time the external parallels with comparable bird-representations from Tepe Gawra (cf. Tobler 1950, pl. cxvi: 59), Tell Sabi Abyad I (cf. Le Mière and Nieuwenhuyse 1996, fig. 3.55: 25) or Tell Damishliyya (cf. Akkermans 1993, 43: fig. 3.8: 44) show that such a combination of vessel shape and decoration was widely known in the Halaf world.

Another group represents horned, quadruped animals in a reclining position, mostly found on vessel fragments that originally would seem to have belonged to closed vessels (Fig. 5.9, 3–8 and Fig. 5.10, 3–8). Parallels are known for example from Tell Halaf (cf. Schmidt 1943, 40 Taf. v:2; vi:2 and lvi:2.7–8: The quadruped and horned animals are labelled here as row of bulls), Tell Damishliyya (cf. Akkermans 1993, 44: fig. 3.9: 60) and other sites (see for sites like Yunus or Tell Turlu: LeBlanc and Watson 1973, 123 with motif 63 on fig. 3). Such rows of quadruped animals can also be seen in some other cases on the interior of bowls (Fig. 5.10, 9). A good comparison and identical in style and decoration from the Wadi Hamar region can be shown from the site of Ajila-South (Fig. 5.9, 9 and Fig. 5.10, 10), c. 15 km north-east from Tell Tawila.

Finally, we emphasise that we could not demonstrate significant patterning in the distribution of stylistic elements across different excavation areas. Beside some differences in the quality of the painting, it is impossible to separate pottery assemblages on the basis of their connection with different units, *i.e.* households.

Local production of the pottery and decoration style

The Halaf pottery from Tell Tawila was produced mainly locally, as can be seen through wasters of, especially, the dominant monochrome painted Halaf Fine Ware. The favoured shaping technique for the vessel started with forming the bottom as a disc, after which the upper part was built of coils of clay. Small vessels could be made of a small piece of clay and formed through pinching. The surface of the finished vessel was then scraped and burnished with different tools (for example with *spatulae*, scrapers or polishing stones). Finally the

painting was applied to the vessel before the firing with a kind of brush made of hair or reeds (for the used tools and techniques see for example Dabbagh 1966, 24; van As and Jacobs 1989; Bernbeck 1994, 253f.; or Nieuwenhuys 2010, 100 with fig. 12.2 left on p. 101).

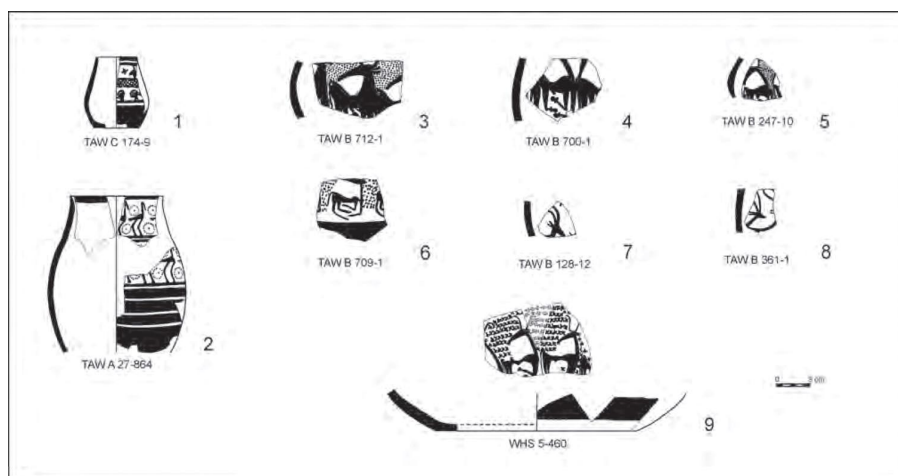


Figure 5.9. Animal representations on Halaf pottery from Tell Tawila.

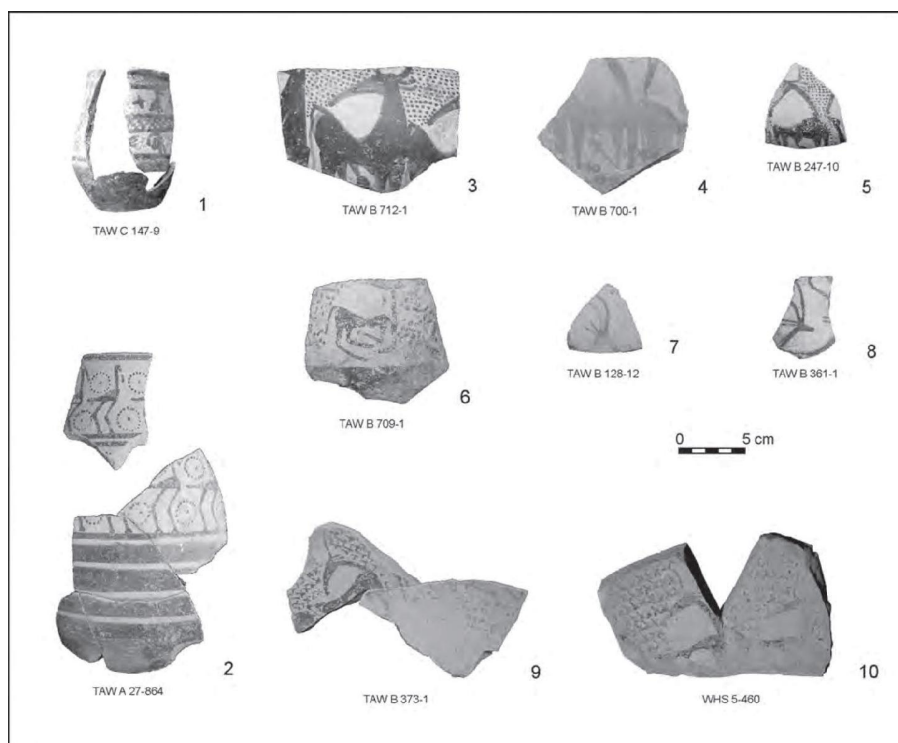


Figure 5.10. Animal representations on Halaf pottery from Tell Tawila (Nos 1–9) and Ajila-South (No. 10).

Concerning the pigments used on the Halaf pottery from Tell Tawila, no archaeometric examinations are currently available. Analysis from other sites shows that in first place iron-oxide rich haematite and ochre were favoured, to a lesser extent also magnetite and seldom manganese, whereas potassium could be used as flux (*cf.* Steinberg and Kamilli 1984). Through differences in the thickness of the painting and/or variable atmosphere during the firing process, a polytone colour effect can be seen on many sherds. The colour ranges – as usual – from black via brown to red with numerous shades. In particular Halaf potters had an extraordinary control of the used materials and the firing conditions. They could fire the painted vessels either in single chamber kilns or in double chamber kilns, which allow a much better control of the atmosphere and allow alternating oxidizing and reducing stages (*cf.* van As and Jacobs 1989, 227, 229; Noll 1991, 121–140, 244–246; Akkermans 1993, 276; Gilbert 2004; Robert *et al.* 2008a; 2008b).

This highly developed potters' expertise for producing bi- and polychrome pottery became a characterising component of Halaf IIB assemblages, well known from the *burnt house* at Arpachiyah and often seen as part of a specialised organization of pottery production (Mallowan and Cruikshank-Rose 1935, 17 and 104–122, pl. xiii–xviii, xix: 1–2 and xx: b; *cf.* Perkins 1949, 16f.; or Mellaart 1975, 165). For the late Halaf (Halaf IIB) polychrome pottery compare von Wickede (1986, 9), Davidson (1977, 67 for Arpachiyah and 148 for Tell Aqab), Campbell (1992, 64) or Nieuwenhuyse (2000, 167f.). In contrast to the painted Fine Ware, the kitchen ware with mineral temper could be finished in an open fire (*cf.* Akkermans 1993, 276; van As and Jacobs 1989, 227, 229).

The painting could be made in different ways. Very often the painting process started at Tell Tawila with one or more horizontal lines or bands along characteristic points of the vessel profile, so along the rim, the passage from neck to shoulder or along the base and represents borderlines. Afterwards the area in between these horizontal lines or bands could be painted. In the case of complex motifs, for example through vertical lines *metopes* could be created and lastly these fields could be filled with different motifs (*cf.* Nieuwenhuyse 2007, 192 with fig. 7.8.5 on p. 195). In other cases, the painting process starts with the motif itself (for example early cross-hatchings) and painting the horizontal bands at last as Castro-Gessner (2013) has described it for pottery samples from Tell Sabi Abyad I and Fıstıklı Höyük.

The presence of incompletely finished painted vessels represents yet

another argument for local production. One example is a small carinated cup, on which, as usual, the broad horizontal band was painted at first. In a next step a row of lozenges was just partly executed, but the person painting stopped when she/he came too close to the horizontal band (cf. Fig. 5.7, 13).

Conclusive arguments for local production of Halaf pottery, finally, come from the archaeometrical analysis of pottery samples. A total of 123 sherds from Tell Tawila and other sites from the Wadi Hamar region, as well as some sherds from Tell Halaf were analysed with portable X-ray fluorescence (X-RFA) by Dr. M. Helfert from the University of Frankfurt am Main; 84 sherds could be dated to the Halaf period, 17 are Ubaid in date, and 21 samples are Late Chalcolithic (Helfert 2015). Thirty of them were further studied with thin sections via polarization microscope, X-ray phase-analysis, and electron radiate microscope-analysis by PD Dr. K. Drüppel from the University of Karlsruhe (Drüppel 2015). These examinations document a great diversity in the clays used and give no evidence for a special preparation of the clay, but they do suggest that the Halaf potters selected their clay sources with some care as suggested already by Noll (1991, 234–238), who interpreted the fine matrix of the analysed Halaf sherds as indication of a preparation through levigating (see also Nieuwenhuyse 2007, 92 for the use of a finer clay matrix and questioning an often suggested levigating process). Different chemical components can be found in the pottery samples from Tell Tawila, and particularly in the monochrome painted Halaf Fine Ware, which show that different clay sources were used. Main components of these calcareous clays are quartz and feldspar, as well as pyroxene, calcite, ghelenite, and partly also illite as minor groups.

In their geographical distribution three groups can be identified (groups A–C). We interpret these groups as indicating local production of the pottery. For example the samples from Tell Tawila and Tell Chuera, both lying along the same Wadi Chuera, show a great similarity and can be seen as a reflection of the more or less identical geochemical composition of the clays along that Wadi (group B). The samples from both sites are different in their geochemical and mineralogical signature to the samples from Tell Halaf (group A). In a third group all other sites from the Wadi Hamar region are combined, but these group shows a greater heterogeneity (group C). In general the evidence for exchange in pottery is weak. Maybe just in one case we can see such an example for exchange with pottery. A monochrome painted sherd from Tell Halaf had a chemical signature closely comparable to the Tell Tawila/Tell Chuera group. In this case

a small cup (*Trichterrandbecher*), published by Schmidt (1943, pl. xlii: 6), may have been “exported” from Tell Tawila to Tell Halaf.

As part of the exchange network during the Halaf period maybe animal skins from Tell Tawila were brought to other sites and *vice versa* other goods from outside came into the Tell Chuera region, for example obsidian, which came from different sources in eastern Turkey (Bingöl A/B and Pasinler). Through examinations with portable X-ray fluorescence (T. Helms and M. Helfert, pers. comm.; cf. Becker 2015, 199–201) the site of Tell Halaf seems to have functioned in such a network as a kind of “trading post” for the Halaf *Hinterland* around Tell Chuera.

From the point of the mineralogical analyses and the different chemical compositions which develop during the firing process, the firing temperature shows a range from 800 to 900°C. Such temperatures can be compared with examinations from other Halaf sites and again indicate the wide range of local production (cf. van As and Jacobs 1989, 226 with tab. v. 1 on p. 230f.; Drüppel 2015).

Conclusions

The picture that was drawn for the painted Halaf pottery from Tell Tawila can be found in a similar manner also at the other sites of the Wadi Hamar region. It shows a commonality which was widely distributed and can be seen at other sites and regions too, for example on typical flaring bowls with a carinated S-profile from Khirbet esh-Shenef with a similar, standardised painting (cf. Akkermans 1993, 93 figs 3.29 and 3.30, nos 1–11 on p. 96f.).

About 20 years ago Akkermans saw this kind of uniformity in the Halaf pottery style as possibility to express membership to a group or as kind of separation (“we are Halafians” or, when differences in style can be observed “we are not like you”) (cf. Akkermans 1993, 318–321).

In agreement with that view, I emphasize the strong stylistic homogeneity of the painted Halaf pottery on the regional level, *i.e.* the Wadi Hamar region with their contacts to neighbouring regions, which stands in a sharp contrast to the dispersed settlement structure. Most of the Halaf settlements in the Wadi Hamar region were small hamlets in a distance of just a few kilometres from one another as can also be seen in other regions (cf. Fig. 5.1). In terms of the chronological framework, our survey would suggest that this area was not occupied prior to the Proto-Halaf stage. Only after the Halaf culture had moved away from traditions inherited from the older pottery Neolithic did the Wadi Hamar region become attractive, and

began to be intensively settled as part of the “*Halafian package*”, including hunting as part of the subsistence strategy.

We must of course take into account the possibility that at least some of such hamlets were not detected during the survey; originally their quantity was most likely slightly higher. In any case this geographical picture suggests a not intensely occupied region with a population density of just one or two person per square kilometre. The great majority of these sites can thus be seen as “*islands*” standing out from the surrounding plains.

In this perspective, I interpret the high degree of stylistic similarity and to some extent the *standardization* of the Halaf pottery style as an explicit means to express group membership and familiarity with the production and decoration of a particular style of painted vessels. The spread of Halaf painted vessels stood for inclusion of dispersed social groups within the Halaf cultural tradition and their deliberate affiliation with a greater, supra-local social network. In contrast, the emphasis on individuality, or overt adherence to smaller, more exclusive social groups, was not so strong. I argue that the Halafian communities felt the need to express membership to larger social units through the medium of painted pottery that followed widely accepted conventions, rather than creating individual decors for each individual household.

A slightly different explanation was given by Nieuwenhuyse a few years ago. He described these similarities with the well chosen term *emulation*, to copy something. Making reference to anthropological studies his approach described a social system, wherein members with a lower social status copy items from persons with higher social rank. He argued for a social setting of more or less “egalitarian communities”, but one for which the occurrence of local *Big Men* cannot be excluded (Nieuwenhuyse 2007, 219–223). In the case of Tell Tawila, however, social difference in the Halaf-period levels can hardly be detected in the archaeological record. The only artefact at Tell Tawila that might be seen as a symbol of prestige is a mace-head. Together with an assemblage of flint and obsidian objects, these burned and destroyed objects were found in a kind of ritual deposit (Becker *et al.* 2007, 245 and 251f. Abb. 27; and in particular Becker and Helms 2013).

To conclude, it will be clear that both explanations do not necessarily exclude each other; mono-causal statements seldom are enough for the interpretation of complex cultural and/or social processes.

Acknowledgments

I would like to express my appreciation to Dr Federico Buccellati, for the grammatical and stylistic corrections of my manuscript. I would also like to thank the organizers of the Brno conference and the editors and reviewers of this publication for the invitation to contribute this paper and for their stimulating comments.

Bibliography

- Akkermans, P. M. M. G. (1993) *Villages in the Steppe. Later Neolithic Settlement and Subsistence in the Balikh Valley, Northern Syria*. International Monographs in Prehistory, Archaeological Series 5, Michigan, Ann Arbor.
- Akkermans, P. M. M. G. (2013) Living space, temporality and community segmentation: interpreting Late Neolithic settlement in northern Syria. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 63–75, Turnhout, Brepols.
- Akkermans, P. M. M. G. and Schwartz, G. M. (2003) *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (c. 16,000–330 BC)*. Cambridge World Archaeology. Cambridge, Cambridge University Press.
- Akkermans, P. M. M. G. and Wittmann, B. (1993) Khirbet eshShenef 1991. Eine späthalafzeitliche Siedlung im Balikhthal, Nordsyrien. *Mitteilungen der Deutschen Orient-Gesellschaft* 125, 143–166.
- Akkermans, P. M. M. G., Cappers, R., Cavallo, C., Nieuwenhuyse, O., Nilhamn, B. and Otte, I. N. (2006) Investigating the Early Pottery Neolithic of northern Syria: new evidence from Tell Sabi Abyad. *American Journal of Archaeology* 110, 123–156.
- Becker, J. (2004) Halaf- und Obed-Zeit im Wadi al-Hamar, Nordost-Syrien. *Morgenländische Altertümer – Studien aus dem Institut für Orientalische Archäologie und Kunst. Hallesche Beiträge zur Orientwissenschaft* 37, 97–133.
- Becker, J. (2015) Tell Tawila, Tell Halaf- und Wadi Hamar. Halaf und 'Obed-Zeit in Nordost-Syrien. *Regionale Entwicklungen, Gemeinsamkeiten und Unterschiede (mit Beiträgen von K. Drüppel und M. Helfert)*, Bibliotheca neolithica Asiae meridionalis et occidentalis, Berlin, ex oriente.
- Becker, J. and Helms, T. (2013) A Halafian ritual deposit from Tell Tawila. *Neo-Lithics* 1/13, 24–35.
- Becker, J., Helms, T., Posselt, M. and Vila, E. (2007) Ausgrabungen in Tell Tawila, Nordost-Syrien. Bericht über zwei Grabungskampagnen 2005 und 2006, unter Mitarbeit von P. Aytac, J. Eckardt und J. Malo. *Mitteilungen der Deutschen Orient-Gesellschaft* 139, 213–268.
- Bernbeck, R. (1994) *Die Auflösung der häuslichen Produktionsweise. Das Beispiel Mesopotamiens*, Berliner Beiträge zum Vorderen Orient 14, Berlin, Dietrich Reimer.
- Bernbeck, R. (1995) Dörfliche Kulturen des keramischen Neolithikums in Nord- und Mittelmesopotamien: Vielfalt der Kooperationsformen. In K. Bartl, R. Bernbeck and M. Heinz (eds) *Zwischen Euphrat und Indus: Aktuelle Forschungsprobleme in der Vorderasiatischen Archäologie*, 28–43, Hildesheim/New York, Georg Olms.
- Bernbeck, R. (2008) Taming the time and timing the tamed. In J. Cordoba, M. Molist, C. Pérez, I. Rubio and S. Martinez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (3.–8. April 2006)*, 709–728, Madrid, Universidad Autónoma de Madrid.
- Bernbeck, R. and Pollock, S. (2003) The biography of an Early Halaf village: Fistikli Höyük 1999–2000 (with contributions by S. Allen, A. G. Castro Gessner, S. Kielt Costello, R. Costello, M. Foree, M. Y. Gleba, M. Goodwin, S. Lepinski, C. Nakamura und S. Niebuhr). *Istanbuler Mitteilungen* 53, 9–77.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, PhD thesis, Edinburgh, University of Edinburgh.
- Castro-Gessner, G. (2013) Sequencing practices, revealing traditions: a case study on painters' brushwork. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 125–134, Turnhout,

- Brepols.
- Charvát, P. (2002) *Mesopotamia before History*, London/New York, Routledge.
- Cruells, W. and Nieuwenhuyse, O. (2004) The Proto-Halaf Period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Dabbagh, T. (1966) Halaf Pottery. *Sumer* 22, 23–43.
- Davidson, T. E. (1977) *Regional Variation within the Halaf Ceramic Tradition*, PhD thesis, Edinburgh, University of Edinburgh.
- Davidson, T. E. and McKerrell, H. (1976) Pottery analysis and Halaf Period trade in the Khabur headwaters region. *Iraq* 38, 45–56.
- Davidson, T. E. and McKerrell, H. (1980) The neutron activation analysis of Halaf and Ubaid pottery from Tell Arpachiyah and Tepe Gawra. *Iraq* 42, 155–167.
- Drüppel, K. (2015) Mineralogische und petrographische Untersuchungen an Keramikscherben der Halaf- und 'Obed-Zeit aus verschiedenen Fundorten Nordost-Syriens. In J. Becker (ed.) *Tell Tawila, Tell Halaf und Wadi Hamar. Halafund Obad-Zeit in Nordost-Syrien. Regionale Entwicklungen, Gemeinsamkeiten und Unterschiede. Bibliotheca neolithica Asiae meridionalis et occidentalis*, 452–458, Berlin, ex oriente.
- Forest, J.-D. (2013) The birth of a new culture: at the origins of the Halaf. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 101–105, Turnhout, Brepols.
- Frangipane, M. (2007) Different types of egalitarian societies and the development of inequality in early Mesopotamia. *World Archaeology* 39/2, 151–176.
- Frangipane, M. (2013) Societies without boundaries: interpreting Late Neolithic patterns of wide interaction and sharing of cultural traits: the case of the Halaf communities. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 89–99, Turnhout, Brepols.
- Galbraith, J. and Roaf, M. (2001) *Does the Neutron Activation Analysis of Halaf Pottery Provide Evidence of Trade? A Reexamination of Davidson and McKerrell's Investigation of Halaf Pottery from the Khabur Basin in Eastern Syria*. LSE Department of Statistic Research Report, London, London School of Economics.
- Gilbert, B. (2004) Analysis of the painting on six Halaf Period pottery samples from Tell Amarna (Syria). In Ö. Tunca and M. Molist (eds) *Tell Amarna (Syrie) I. La période de Halaf. (Avec la collaboration de W. Cruells)*, 213–219, Association pour la promotion de l'Histoire et de l'Archéologie Orientales a.s.b.l., Louvain/Paris/Dudley (MA), Peters.
- Gustavson-Gaube, C. (1981) Shams ed-Din Tannira, part III: the Halafian pottery of Area A. *Berytus* 29, 9–182.
- Hansen Streily, A. (2001) Early Pottery kilns in the Middle East. *Paléorient* 26/2, 69–81.
- Helfert, M. (2015) Bericht über die geochemischen Untersuchungen zu spätneolithischer/chalkolithischer und bronzezeitlicher Keramik aus Nordost-Syrien. In J. Becker (ed.) *Tell Tawila, Tell Halaf und Wadi Hamar. Halaf- und 'Obad-Zeit in Nordost-Syrien. Regionale Entwicklungen, Gemeinsamkeiten und Unterschiede*, Bibliotheca neolithica Asiae meridionalis et occidentalis, 443–451, Berlin, ex oriente.
- Helms, T. (2007) Lithische Funde. In J. Becker, T. Helms, M. Posselt and E. Vila, Ausgrabungen in Tell Tawila, Nordost-Syrien. Bericht über zwei Grabungskampagnen 2005 und 2006, unter Mitarbeit von P. Aytac, J. Eckardt und J. Malo, *Mitteilungen der Deutschen Orient-Gesellschaft* 139, 246–253.
- Hijjara, I. (1997) *The Halaf Period in Northern Mesopotamia*, Edubba 6. London, NABU Publications.
- Hole, F. (2013) Constrained innovation: Halafian ceramics. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 77–87, Turnhout, Brepols.
- Hrouda, B. (1972–75) H. alaf-Kultur. *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 4, 55–58.
- Kudlek, V. (2006) *Ein Beitrag zur Siedlungsgeschichte im Bereich von Tell Chuera. Der Wadi Hamar-Survey. Eine Auswertung für das dritte Jahrtausend v. Chr. und die frühislamischen Perioden*, Unpublished MA thesis, University of Frankfurt am Main.
- LeBlanc, S. A. and Watson, P. J. (1973) A comparative statistical analysis of painted pottery from seven Halafian sites. *Paléorient* 1, 117–133.

- Le (mière), M. and Nieuwenhuysse, O. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad. The Late Neolithic Settlement. Report on the Excavations of the University of Amsterdam (1988) and the National Museum of Antiquities Leiden (1991–1993) in Syria* (Vol. I–II), 119–284, Leiden/Istanbul, Nederlands Historisch Archaeologisch Instituut.
- Mallowan, M. E. L. and Cruikshank-Rose, J. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.
- Mellaart, J. (1975) *The Neolithic of the Near East*, London, Thames and Hudson.
- Merpert, N. Y. and Munchaev, R. M. (1993a) Yarim Tepe II: The Halaf Levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization. Soviet Excavations in Northern Iraq*, 129–162, Tucson/London, University of Arizona Press.
- Merpert, N. Y. and Munchaev, R. M. (1993b) Yarim Tepe III: The Halaf Levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization. Soviet Excavations in Northern Iraq*, 163–205, Tucson/London, University of Arizona Press.
- Meyer, J.-W., Khalaf, M., al-Musa, I., Breitwieser, C., Doerner, S., Würz, M. and Zysek, A. (2001) Die dritte Grabungskampagne in Kharab Sayyar 2000. *Mitteilungen der Deutschen Orient-Gesellschaft* 133, 199–223.
- Nieuwenhuysse, O. P. (2000) Halaf settlement in the Khabur headwaters. In B. Lyonnet (ed.) *Prospection archéologique du Haut-Khabur occidental (Syrie du N.E.), Vol. I. Bibliothèque archéologique et historique* 155, 151–260, Beyrouth, Institut Français d'Archéologie du Proche Orient.
- Nieuwenhuysse, O. P. (2007) *Plain and Painted Pottery. The Rise of Neolithic Ceramic Styles on the Syrian and Northern Mesopotamian Plains*, Turnhout, Brepols.
- Nieuwenhuysse, O. P. (2009) Feasting in the steppe – Late Neolithic ceramic change and the rise of the Halaf. In J. Cordoba, M. Molist, C. Pérez, I. Rubio and S. Martinez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (3.–8. April 2006)*, 691–708, Madrid, Universidad Autónoma de Madrid.
- Nieuwenhuysse, O. P. (2010) A household affair? Pottery production in the burnt village at Late Neolithic Tell Sabi Abyad. In D. Bolger and L. C. Maguire (eds) *The Development of Pre-State Communities in the Ancient Near East. Studies in Honour of Edgar Peltenburg. Themes from the Ancient Near East*, BANEA Publication Series 2, 97–105, Oxford, Oxbow Books.
- Noll, W. (1991) *Alte Keramiken und ihre Pigmente. Studien zu Material und Technologie*, Stuttgart, E. Schweizerbart.
- Perkins, A. (1949) *The Comparative Archaeology of Early Mesopotamia*, Studies in Ancient Oriental Civilization 25, Chicago, University of Chicago Press.
- Redman, C. L. (1978) *The Rise of Civilization. From Early Farmers to urban Society in the Ancient Near East*, San Francisco, Freeman.
- Robert, B., Lasalle, A. and Chapoulie, R. (2008b) New Insights into the ceramic technology of the Proto-Halaf (transitional) period by using physico-chemical methods. In J. Cordoba, M. Molist, C. Pérez, I. Rubio and S. Martinez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (3.–8. April 2006)* Vol. 3, 735–752, Madrid, Universidad Autónoma de Madrid.
- Robert, B., Blanc, C., Chapoulie, R. and Masetti-Rouault, M. G. (2008a) Characterising the Halaf-Ubaid transitional period by studying ceramics from Tell Masaikh, Syria. Archaeological data and archaeometric investigation. In H. Kühne, R. M. Czichon and F. J. Kreppner (eds) *Proceedings of the 4th International Congress of the Archaeology of the Ancient Near East, 29 March–3 April 2004, Freie Universität Berlin*, 225–234, Wiesbaden, Harrassowitz.
- Schmidt, H. (1943) *Max Freiherr von Oppenheim, Tell Halaf I. Die prähistorischen Funde*, Berlin, De Gruyter.
- Steinberg, A. and Kamilli, D. C. (1984) Paint and paste studies of selected Halaf sherds from Mesopotamia. In P. M. Rice (ed.) *Pots and Potters. Current Approaches in Ceramic Archaeology*, 187–208, Institute of Archaeology Monograph 24, Los Angeles, University of California Press.
- Tobler, A. J. (1950) *Excavations at Tepe Gawra, Vol. II: Levels IX–XX*, Philadelphia, University of Pennsylvania Press.
- Tsuneki, A. and Miyake, Y. (eds) (1998) *Excavations at Tell Umm Qseir in Middle Khabur Valley*,

- North Syria. Report of the 1996 Season, Al-Shark 1, Tsukuba, University of Tsukuba.
- van As, A. and Jacobs, L. (1989) Technological aspects of the prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Excavations at Tell Sabi Abyad. Prehistoric Investigations in the Balikh Valley, Northern Syria*, British Archaeological Report S468, 215–232, Oxford, British Archaeological Reports.
- Vila, E. (2007) Etude préliminaire des vestiges osseux de mammifères de Tell Tawila. In J. Becker, T. Helms, M. Posselt, and E. Vila, *Ausgrabungen in Tell Tawila, Nordost-Syrien. Bericht über zwei Grabungskampagnen 2005 und 2006, unter Mitarbeit von P. Aytaç, J. Eckardt und J. Malo*, *Mitteilungen der Deutschen Orient-Gesellschaft* 139, 253–258.
- von Wickede, A. (1986) Die Ornamentik der Tell Halaf-Keramik. Ein Beitrag zu ihrer Typologie. *Acta Praehistorica et Archaeologica* 18, 7–32.
- Watson, P. J. (1983) The Halafian Culture: a review and synthesis. In T. C. Young, P. E. L. Smith and P. Mortensen (eds) *The Hilly Flanks and Beyond. Essays on the Prehistory of Southwestern Asia Presented to Robert J. Braidwood, November 15, 1982*. Studies in Ancient Oriental Civilization 36, 231–249, Chicago, University of Chicago Press.
- Watson, P. J. and LeBlanc, S. A. (1973) *Excavation and Analysis of Halafian Materials from South-eastern Turkey: The Halafian Period Reexamined*, Unpublished Paper presented at the 72nd Annual Meeting of the American Anthropological Association, New Orleans, Nov. 28.–Dec. 2, 1973.

The appearance and development of painted ceramics at seventh millennium Tell Halula (Syria)

Josep-Miquel Faura and Miquel Molist

Abstract

This paper discusses the appearance and development of the earliest painted pottery in the seventh millennium at the site of Tell Halula, Syria, which offers a unique point of reference for the central Euphrates valley. The painted pottery is studied in its morphological and technological aspects. In Phase 1, potters developed the so-called Black Series, well-made vessels with highly polished, but never painted, outer surfaces. The technique of painted decoration is not documented in the oldest phases and its introduction in Phase 2 formed the basis of the subsequent evolution of pottery in the middle of the seventh millennium. By contextualizing this pottery in the framework of the northern Levant and southern Anatolia as currently understood, the ceramic developments observed at Tell Halula can be situated within contemporary cultural and social transformations.

Introduction

The region of North Syria and the middle Euphrates River Valley is one of the most significant areas for understanding the transformation from foraging and hunting to agriculture during the Neolithic.

Archaeological data from this area has been recovered in two salvage operations carried out before the filling of reservoirs behind the Assad dam in the late 1980s and the Tishrin dam in the 1990s. During the 1970s and '80s, the sites of Mureybet (Cauvin 1977), Cheik Hassan (Cauvin 1978), Abu Hureyra (Moore 1975) and Shams ed Din Tannira (Seeden 1982) yielded information about the Neolithic that

led to some innovative interpretations (Cauvin 1978; 1989; Moore 1985; Cauvin and Cauvin 1993).

Despite these results, the appearance of the first ceramics and their immediately subsequent evolution were underrepresented. However, higher levels of deposits, as at Abu Hureyra (Phase 2C) (Moore 1975; Moore *et al.* 2000) and Bouqras (recent levels) (Akkermans *et al.* 1983), reflect continuity from the previous preceramic stages during the first part of the seventh millennium just before the sites were abandoned. To these must be added deposits found by surface prospecting, such as Hamman, Hamman Kebir, and Molla Assad (Copeland and Moore 1985).

On the other hand, the excavations at Shams ed Din, and the discovery of the settlement Zreyjiye (Lüth 1990) document stable occupations in the Halaf period, especially in its late phases. With such partial information, general syntheses and several studies were devoted to the evolution of seventh millennium cultures (Le Mièrre 1986). The middle Euphrates was interpreted as marginal to Neolithic developments and there were even suggestions of a displacement of populations to neighboring areas, such as the coastal region or Jezirah (see for example Hours and Copeland 1983).

Recent research has radically changed this view and recognized dense human occupation during the ceramic Neolithic. In the Euphrates valley, this horizon has been documented in the deposits at Dja'de el Mughara, with various levels of buildings that form the phase Dja'de IV (Coqueugniot 1999; 2014), a first installation, with no trace of domestic structures at the site of Kosak Chemali (Nishiaki and Matsutani 2003) and a long occupation at the site of Halula, where a stratigraphic sequence (Levels 20–38) covers most of this horizon (Molist *et al.* 2013; Molist 2014). Moreover, in the same geographic area of the middle Euphrates within the state of Turkey, there are also significant developments at such important sites as Akarçay Tepe (Arimura *et al.* 2000; Özbaşaran and Duru 2011) and Mezraa-Teleilat (Özdoğan 2011).

The long-term, ongoing, research programme at the prehistoric site of Tell Halula (Euphrates Valley, Syria) has made significant contributions to our knowledge of the first farmers in the Pre-Pottery Neolithic. Located about 130 km north-east of the city of Aleppo, the excavation of Tell Halula formed part of the heritage rescue project in connection with the construction of the Tishrin Dam. This project has succeeded in obtaining a detailed understanding of this major site, over 7 ha in size and with a stratigraphic sequence over 11 m thick (Fig. 6.1).

The Halula project has also contributed to our understanding of the Late Neolithic, also known as the Pottery Neolithic. In this important final stage of the Neolithization process, the economic, technological and cultural changes set in motion in the early, aceramic Neolithic became consolidated. In the final stage, the appearance of pottery was a technological change in the global transformation process initiated in the previous millennia.

A total of 38 occupation phases have been identified, starting with the oldest inhabitation directly on virgin soil to the most recent occupations at the top of the tell (see [Table 6.4](#) below). Through relative chronology and absolute dating, it has been determined that the site was occupied continually from *Middle Pre-Pottery Neolithic B* to the *Late Halaf* period (7800–5300 cal BC). This continuity of the occupations at the site does not necessarily represent human habitation on the entire surface of the Tell, because the occupations were spread over the surface of the site. (Molist 1996; 2001; 2014; Molist *et al.* 2007). Occupations dated in the *Late Neolithic* period, also named Pre-Halaf horizon or even Period 5 in Lyon School terminology (Le Mière 1986; Hours *et al.* 1994), have been documented in several sectors of the excavation, especially in the south, south-east and central part of the settlement (Sectors 1, 2, 7, 14, and 30) (for their locations see [Fig. 6.2](#)) Their long chronological span covers most of the seventh millennium BC (Phases 20–33) (see below). The stratigraphic information and the study of archaeological remains indicate a sedentary population, with several large houses or architectonic structures that are distributed in a dispersed pattern, with large open spaces between the buildings for domestic use. Complementary with these, in the east and on the edge of the site, a monumental enclosing wall and channelling indicates collective construction activity (Sector S 7) ([Fig. 6.3](#)) (Molist 1996; 1998; Molist and Faura 1999; Molist *et al.* 2013).



Figure 6.1. Tell Halula. Overview of the site (photo: Sappo/UAB).

The ceramic evidence from the site covers the first appearance of pottery and its subsequent evolution, through the Proto-Halaf or “transitional” phases into Halaf-style pottery, in a continuous chronological and stratigraphical sequence. The earliest ceramic assemblages at the site were studied in the 1990s. Although preliminary, the results of this study drastically revised the existing paradigm and forced an innovative reappraisal of our understanding of the earliest pottery in the northern Levant and Upper Mesopotamia (Faura 1996a; 1996b; Faura and Le Mièrre 1999; Molist 2001; Molist *et al.* 2013). In this paper these earlier findings are reviewed and a new, updated synthesis for the earliest pottery at Tell Halula is proposed. The discussion is extended by including data recovered from the most recent excavation seasons and by incorporating new, ongoing laboratory studies. This paper offers a detailed review of the first appearance and subsequent development of painted pottery, which is situated within the evolution of the oldest ceramic phases. We conclude by contextualizing the site in the framework of new insights recently emerging from northern Levant and southern Anatolia.

The seventh millennium ceramic sequence at Tell Halula

The first ceramic assemblages and their subsequent evolution in the seventh and early sixth millennia have been documented in several excavated sectors in the tell, and a numerically large sherd sample has been studied. In general terms, the studied sample can be considered representative of the typological diversity characterizing the ceramic

assemblages. The earliest pottery is very fragmented, which hinders the refitting of whole vessels. However the sherds are in an acceptable state of conservation which, in most cases, allows the clear identification at a macroscopic level of traces of the *chaîne opératoire*, including clay preparation strategies, shaping techniques, surface treatments, firing, and the techniques used for applying impressed, incised or painted decoration.

The results of this detailed morpho-technological study, in combination with the stratigraphic analysis of the east and south sectors of the settlement, indicate that the long ceramic sequence can be divided into three phases. This ceramic periodization corresponds to other aspects of the material culture and, above all, is supported by the stratigraphy and the absolute chronology defined at the site.

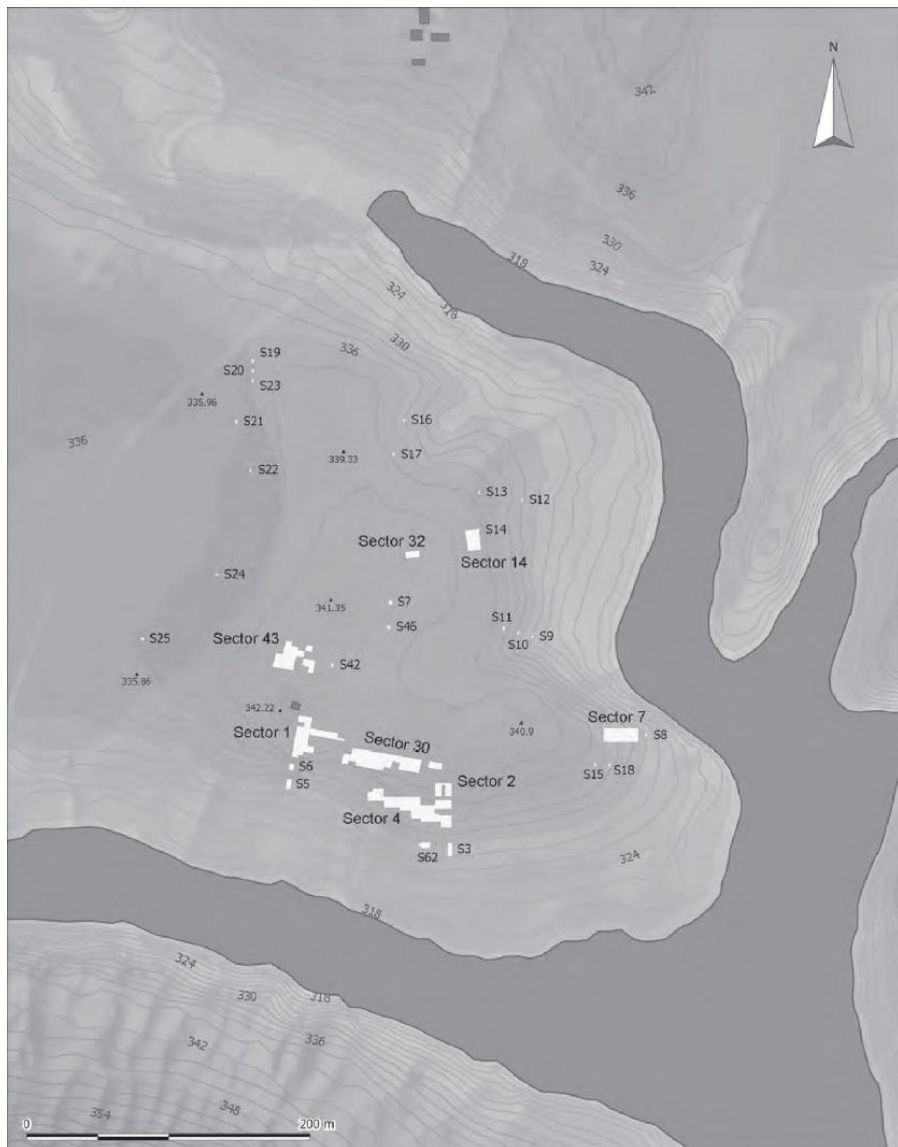




Figure 6.3. Tell Halula. Overview of Sector S7 with the enclosing wall at the east side of the site (photo: Sappo/UAB).

These three phases have been named according to chronological criteria Pottery Phases 1–3. *Pottery Phase 1*, the oldest, is mainly documented in the lower part of the sequence in Sector S 7 (Figs 6.1 and 6.2). The next, *Pottery Phase 2*, which represents the direct chronological and stratigraphic continuation of Phase 1, has been documented in the middle part of Sector S 7 and in the upper part of the tell (Sectors S 14 and S 30). Finally, *Pottery Phase 3*, the most recent, displaying significant ceramic evolution, has been attested mostly in the upper area of the tell (Sector 1). This was certainly not the end of the ceramic sequence for it continued with the Proto-Halaf (or Transitional) and Halaf phases (Faura 1996a; Cruells and Nieuwenhuyse 2004; Molist *et al.* 2013), which fall outside the scope of this paper.

The ceramic-technological variables used to establish these chronological phases are mainly related to fabric and shaping techniques. Variability in the fabric reflects the addition of different kinds of temper, which may be vegetal or mineral inclusions, yielding distinct categories of coarse ware and fine ware. The variation in the shaping techniques refers particularly to surface finishing, morphology and types of decoration. Some of these criteria can be regarded as classic, used repeatedly in traditional pottery studies in the Near East. However, in recent years, new variables have been added to the study of pottery at Halula, such as functionality (volume, use-wear marks, *etc.*) and archaeometrical variables, which constitute our current line

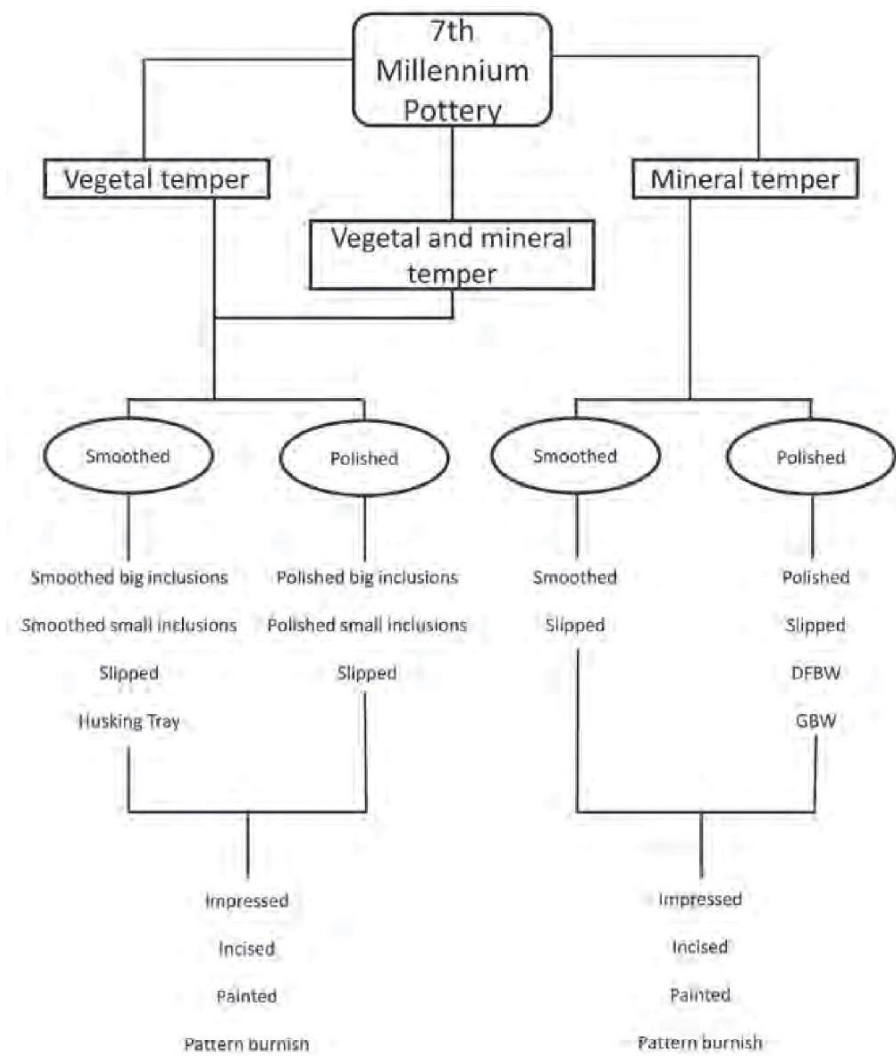
of study (on-going research by Sílvia Calvo and Adrià Breu, Autonomous University of Barcelona).

In relation to the typological classification and terminology used in the study of archaic ceramic production at Tell Halula in this paper, it should be noted that the analysis began in 1991, at a time when references and recent studies of the deposits of the same period in the region were scarce. In consequence, in those initial moments, it was decided to use the traditional technical classification criteria seen in reports of sites in the Siro-zone Cilicia, the middle valley of the Euphrates and to some extent, Northern Mesopotamia.

Once our study was under way, it was very difficult to maintain the terms used in previous studies, primarily due to the relative subjectivity involved when describing ceramics, especially textures and colors, and secondly, because the assemblage displayed variations that did not strictly fit the categories described by other authors. Despite the subjectivity of categories, the closest references, *a priori*, were the work of R. and L. Braidwood (1960) in the Amuq valley, P. Akkermans and M. Le Mièrre (1992) in the Balikh valley and S. Campbell (1992) in the north of Mesopotamia. The terms Coarse and Fine are used to define the different categories of ceramics depending on the type of treatment and type of temper (Rice 1987) (Table 6.1).

Within this initial overview of the different phases, it should be highlighted that the long sequence displays a high degree of internal coherence both diachronically, gradually leading from one phase to the next, and synchronically between the different sectors. This strong coherence has allowed the evolution in the pottery to be observed from the perspective of its technology as well as its decoration. Subtle innovations in these regards can be followed over relatively short periods of time. This is especially the case of the pottery with plant temper, and the Black Ware with mineral inclusions.

Table 6.1. Classificatory scheme for the ceramic groups and series used in the study of the earliest phases of pottery at Tell Halula



The pottery assemblage from Phase 1 was recovered from the oldest levels containing pottery. Importantly, Pottery Phase 1 strata do not lie on virgin soil but were preceded by the Pre-Pottery Neolithic occupation in stratigraphic continuity. This stratigraphic sequence has been located in several parts of the settlement (lower part of Sector S 7 and upper levels in Sector 2/4).

The ceramics in these sectors have two types of temper: mineral temper (68%), and plant temper (32%) (Table 6.2). Among the sherds with mineral inclusions, the “Black Series” is subgroup, with carefully polished or burnished surfaces and simple morphology. Without doubt, the most characteristic element of this subgroup is the presence of mineral temper, particularly “calcite brouiller”, which would provide greater thermal resistance to vessels placed over a fire. Very

few decorated Black Series sherds have been found, none with painted decoration, but some sherds have plastic decoration or appliqué. (Faura 1996a; 1996b; Faura and Le Mièrè 1999). Radiocarbon determinations situate this phase in the first quarter of the seventh millennium, between c. 6900 and 6600 cal BC (Molist *et al.* 2013).

Pottery Phase 2, stratified in continuity with strata of the previous phase, has been excavated in different sectors on the upper part of the tell over large areas of the settlement (Sector 14, Sector 30 and, most recently, Sector 21). This means that the ceramic assemblage from this phase is large. In spite of the stratigraphic continuity, some elements of the pottery mark the beginning of changes that become more clearly expressed in the next phase (Faura 1996a; 1996b; Faura and Le Mièrè 1999).

Table 6.2. Tell Halula. Percentages of the main tempering strategies in Pottery Phases 1–3

	Temper by phase	
	Vegetal %	Mineral %
Phase 1	32	68
Phase 2	68	32
Phase 3	57	43

Importantly, the proportions of the two main series were inverted in this phase, as the plant-tempered series became much more abundant (68%) while the mineral-tempered series declined in frequency (32%) (Table 6.2). However, this marked change in proportion did not take place abruptly, but occurred gradually in the upper levels attributed to Pottery Phase 2, continuing into Phase 3.

Among the pottery with mineral temper, the “Black Series” still formed the most frequent group and displays the same careful surface finish as in the previous phase. A larger proportion of Black Series sherds carried appendages in this phase. Among the pottery with plant temper, as before, simple forms with smoothed finish were the most common. Open vessels in this group sometimes display plastic decoration in the form of single or double cordon. The morphological variation in this series includes the first tentative attempts at shaping vessels with narrow necks. Characterized by smoothed or polished surfaces, some of these exhibit, for the first time at the site, decoration with red paint (see below) or the use of a red slip. The radiocarbon dates situate this phase in the middle of the seventh millennium, between c. 6600 and 6300 cal BC.

Finally, Pottery Phase 3 was excavated in stratigraphic continuity with the previous phase in Sector 30 and has been extensively

excavated in adjacent areas in the upper part of the tell. The pottery assemblage in this phase differs significantly from those in Phases 1 and 2, despite the continuation in limited numbers of some characteristic earlier types. The “Black Series” persisted into Phase 3, but it was now associated with a completely different assemblage, typologically, morphologically and even technologically. The ratio between the two main series – based on plant temper versus mineral temper – remained similar to that of Phase 2, with 57% plant temper and 43% mineral temper (Table 6.2). In the mineral-tempered series, sherds with fine polished surfaces are significantly more abundant. In addition to the limited numbers of the Black Series, in this phase Dark Faced Burnished Ware (DFBW) is found for the first time (Faura 1996a; 1996b; Faura and Le Mièrre 1999).

An important characteristic of the ceramic assemblage in Pottery Phase 3 is the large increase in decorated pottery. This increase is mostly seen in the frequency of the groups with red slip, and in all the groups with impressed decoration. Some sherds have incised decoration. Slightly over 6% of the Phase 3 pottery bore painted decoration. These will be studied in the remainder of this paper.

The painted seventh-millennium pottery from Tell Halula

The appearance of painted decoration techniques in the Late Neolithic at Tell Halula occurred at a time when pottery production had become consolidated and the use of pottery commonplace. Thus, painted pottery does not occur in Phase 1, the time of the first pottery products. In this early phase decorations are limited to a single pattern-burnished sherd and two vegetal-temper sherds with a smoothed brown slip. Hence 99.9% of the Phase 1 pottery displays no kind of decoration. In this phase, practically the only kind of pottery exhibiting careful finish is the Black Series, the production of which reflects a noticeable taste for carefully polished, dark-coloured surfaces (Odaka this vol.; Le Mièrre and Özbaşaran this vol.).

It is not until Pottery Phase 2 that the first significant amounts of decorated pottery appear, with the earliest evidence of painted decoration in both types of ware (plant and mineral inclusions). In all, decorated pottery amounts to 1.75% of the total sherds in this phase. We do not formally consider pottery with a slip to be “painted”, rather, from the technological point of view the use of a slip gives a fine finish, whether or not it is polished, often with a colour different from that of the clay used to build the vessel. In these respects the effects of a slip are often very similar to those of painted decoration. The use of a slip may therefore be regarded as a forerunner to the

technique of painted decoration. In Phase 2, slipped sherds are more abundant, but they do not reach 5% of the assemblage. Red slips in this phase are almost exclusively associated with plant temper.

By Phase 3, impressed and incised decoration appears. These two techniques were more common than painting; however, it should be emphasized that all types of decoration remained very rare. Painted pottery in this phase amounts to 6.3% of the total, while impressed and incised decoration represents 14% of the total ceramic assemblage. As already remarked, different techniques of decoration are associated with distinct ceramic-technological operational chains. Slip remained the main exterior surface treatment, in both vegetal and mineral temper pottery. The slip covered the exterior surface partially or totally (and sometimes the interior as well) with a thin coat of liquid clay with a texture and colour different from the clay body. Interestingly, the application of a slip shows different associations with specific surface finishing treatments, depending on the type of fabric. In general, slips are found with polished surfaces in the series without plant temper but they come with smoothed surfaces in the series with plant temper. This association is far from absolute, but the trend it is clearly reflected in the statistical analysis ([Table 6.3](#)).

Table 6.3. Tell Halula. The proportions of different types of decoration in Pottery Phases 1–3 collectively, distinguishing between the two main tempering strategies and emphasizing the total proportion of painted vessels

<i>Temper</i>	<i>Decoration</i>	<i>Total No. frag</i>	<i>%</i>
Vegetal	Slipped	154	17.19
	Slipped and burnished	114	12.72
	Impressed and/or incised	103	11.50
	Painted	74	8.26
	Pattern burnished	21	2.34
	Total	466	52.01
Mineral	Slipped and burnished	157	17.52
	Slipped	112	12.50
	Painted	107	11.94
	Impressed and/or incised	44	4.91
	Pattern burnished	10	1.12
	Total	430	47.99
	Total decorated sherds	896	100

Painted pottery accounts for only 1.40% of all sherds. Sherds with painted decoration are more frequent in the group with mineral inclusions, but painted decoration is also found with the plant-tempered group where they are associated with smoothed rather than burnished surfaces. The paint colours in both series are red and black.

Probably because a larger sample of painted sherds was collected in Phase 2, the decorative motifs are more diverse. The painting consists of vertical and horizontal lines, mostly arranged in patterns of parallel diagonal lines or chevrons. Another common motif consists of triangles arranged in bands. Horizontal lines with wide bands are also found. In Phase 2, red slip is common, and some sherds with incised and painted decoration have been found (Figs 6.4 and 6.6/Colour Pl. 10). The same surface treatment and decoration strategies were found in plain and coarse ware. External and internal decoration with horizontal and vertical lines is found on the rims. One of these sherds is Grey Burnished Ware with a burnished pattern.

In Pottery Phase 3, the same painted motifs as in the previous phase continue to be present. The limited sample size does not allow firm conclusions to be reached about the range of decorative motifs, but the diversity of motifs appears to increase. Now for the first time the painted pottery includes lattices and possibly some combinations of different types of line (Figs 6.5 and 6.6). As a specific novelty in this phase, red slip is used abundantly, and is used together with incised and painted motifs. As before, the palette of paint colours is limited to red and black. Greater diversity of colours is seen in the slips, which vary from light brown to bright red.

Archaeometric analysis of pigments

The non-destructive characterization the pigments of 15 ceramic sherds from Tell Halula was carried out by Particle Induced X-ray Emission (PIXE). PIXE, based on ion beam analysis, which allows the rapid acquisition of data about the chemical composition of trace elements. This group of painted sherds was studied together with those presented by A. Gomez in this volume. The results show that iron oxide is the main element, although minority elements such as calcium (<0.7%), magnesium and aluminium (c. 0.1%) are also present. PIXE also succeeded in demonstrating the importance of iron oxide (FeOOH) in some samples, mainly haematite (Fe₂O₃) and magnetite (Fe₃O₄). The white colour probably comes from lime, or white lime mainly consisting of calcium carbonate. In some sherds, the absence of minerals suggests that the origin of the pigment is organic. The combination with other techniques, such as Raman

spectroscopy, will improve the characterization of these elements.

Seventh-millennium painted pottery from Tell Halula in its regional context

The pottery sequence documented at Tell Halula is a rich source of information on the evolution of pottery production in the seventh millennium, as it shows in detail how it developed in terms of technology, morphology, and the use of decorative techniques. This well-documented sequence can be taken as a solid point of reference for the wider area of the middle Euphrates valley, as the ceramic assemblages found at Dja'de el Mughara in Syria and at Akarçay Tepe and Tell Mezraa Teleilat in Turkey display similar characteristics and a closely comparable long-term evolution (Arimura *et al.* 2000; Özdoğan 2011; Coqueugniot 2014). At Akarçay Tepe and Mezraa no decoration whatsoever has been documented in the oldest phases with pottery. At Akarçay, painted pottery appeared in Phase IIA and continued until the most recent Phase I, dated in the second half of the seventh millennium. As at Tell Halula, these painted vessels take simple shapes and their surfaces were smoothed or slipped.

Thus, the central Euphrates Valley may constitute a closely integrated ceramic interaction area in the seventh millennium, attesting to strong cultural interaction. Painted decoration was introduced in this region in a late phase of the first pottery production in the seventh millennium.

A similar evolutionary process has been proposed for the far south-east of Anatolia, where recent research in the Tigris area has discovered important sites of this period, especially Sumaki Höyük (Erim-Özdoğan 2011) and Salat Cami Yanı (Miyake 2005; 2011). The latter site has a stratigraphic sequence with three consecutive phases with ceramics, whose characteristics are very similar to those in the Euphrates valley. The first phase (Phase 1) is associated exclusively with the so-called “earliest pottery”, which lacks any form of decoration. In Phase 2, the assemblage mainly consists of plant-tempered Coarse Ware in the form of vessels with their rims curved inwards. These vessels are light-coloured and some display plastic decoration, but no incised or painted examples have been reported. It is only in Phase 3 that painted decoration first appears. This is mostly in red and takes the form of simple motifs such as lines or chevrons. These products have been likened to the Proto-Hassuna assemblages as known in Upper Mesopotamia (Miyake 2011). Although no absolute dates are so far available for Salat Cami Yanı Phase 3, on the basis of these ceramic comparisons, it can be situated in the later stage

of the second half of the seventh millennium. If so, these preliminary results might suggest that in southeastern Anatolia painted decoration appeared slightly later than in western areas, perhaps around 6500 cal BC.

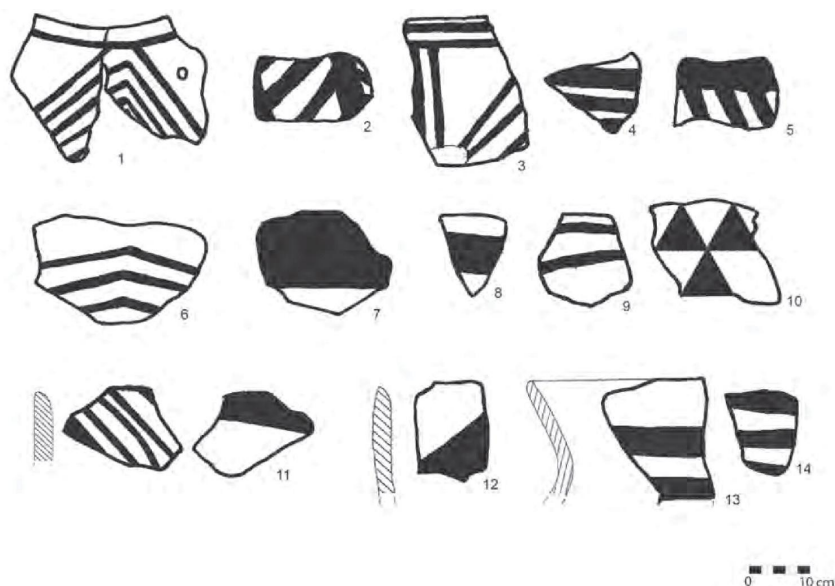


Figure 6.4. Tell Halula. Examples of pottery from Pottery Phase 2 with painted decoration: 1–10: Coarse Ware/Plant-tempered series; 11–12: Fine Ware/Mineral-tempered series; 13–14: Coarse Ware/Plant-tempered series (J. M. Faura/Sappo/UAB).

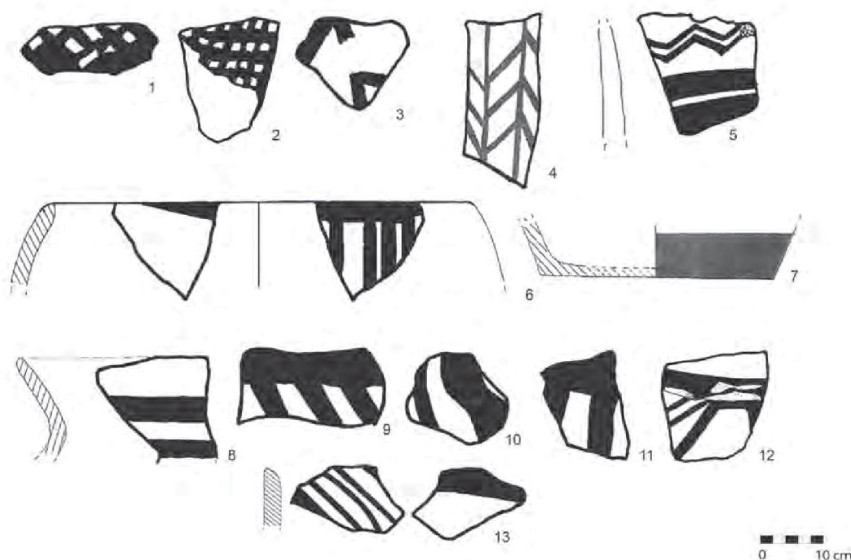


Figure 6.5. Tell Halula. Examples of pottery from Pottery Phase 3 with painted decoration: 1–3: Fine Ware/Mineral-tempered series; 4: Fine Ware/Pattern burnished; 5–7: Fine Ware/Mineral-tempered series; 8–12: Coarse Ware/Plant-tempered series; 13: Fine Ware/Mineral-tempered series (J. M. Faura/Sappo/UAB).

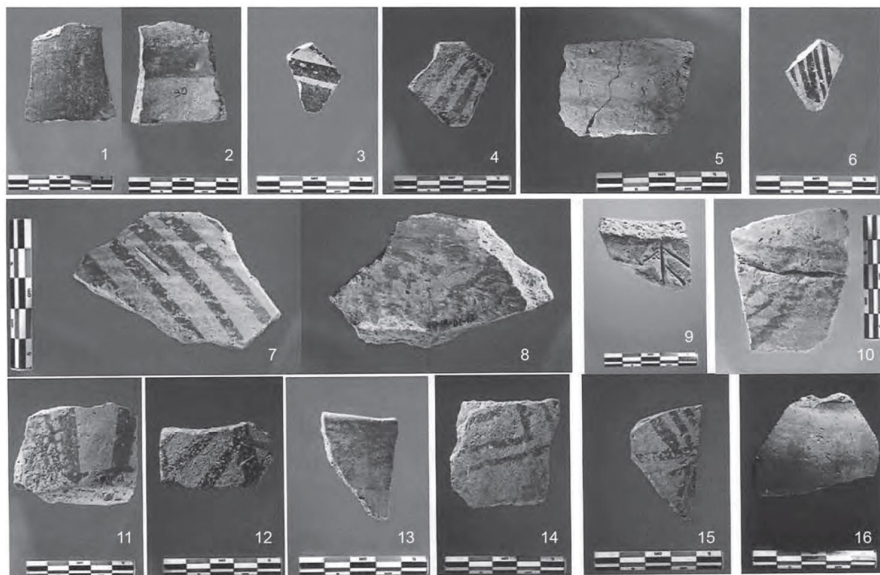


Figure 6.6. (Colour Pl. 10). Tell Halula. Pottery sherds with painted and painted-and-incised decoration: 1–4: Fine Ware/Mineral-tempered series; 5: Coarse Ware/Plant-tempered series; 6: Fine Ware/Mineral-tempered series; 7–11: Coarse Ware/Plant-tempered series; 12–15: Fine Ware/Mineral-tempered series; 16: Coarse Ware/Plant-tempered series (photo Sappo/UAB).

In short, the available evidence for this area documents an evolution broadly similar to the one in the Middle Euphrates, in which an earlier phase with undecorated products gradually gives way to a stage with incised, impressed and/or plastic decoration, followed somewhat later by painted decoration.

In northeast Syria the situation may be different. In the Balikh valley, the site of Sabi Abyad has yielded one of the most complete records (Akkermans 1996; Akkermans *et al.* 2006). At this site pottery was introduced during the *Initial Pottery Neolithic*, dated to c. 7000–6700 cal BC. The pottery in this phase has been called *Early Mineral Ware* (EMW) and is characterised by mineral temper and morphological and technological characteristics comparable with those at other sites of the same date (see above). However, some of the sherds already bore painted decoration. The red or brown paint forms very simple patterns such as parallel diagonal lines, diagonal lines in alternating directions, or wavy lines. The vessels have simple forms and burnished surfaces. Many of them are dark (grey or dark grey), but some are lighter in colour (beige). The next stage, called the *Early Pottery Neolithic*, has been dated to c. 6750–6250 cal BC. The pottery in this phase is tempered mostly with plant inclusions, although some smaller series have mineral temper. These are simple, open shapes with vertical walls without any kind of decoration

(Akkermans *et al.* 2006; Nieuwenhuysen *et al.* 2010; van der Plicht *et al.* 2011). Similar characteristics are recorded at Tell Seker al-Aheimar in northeastern Syria, where the oldest pottery is called *Early Dark Ware*. This series, tempered with large basalt inclusions, has simple shapes with dark burnished surfaces. As at Sabi Abyad, painted decoration on only a small number of sherds. The subsequent ceramic evolution at this site displays a slow replacement of mineral temper by plant temper as the ceramic assemblage as a whole gradually changed into a local variety of the Proto-Hassuna, with abundant plastic and painted decoration (Nishiaki and Le Mièvre 2005).

Finally, the ceramic assemblages recovered from settlements in the northern Levant, both in areas near the coast and in the inland valleys, suggest a relatively homogeneous group, albeit with some significant local differences. Recent excavations at El Kerkh and Shir have found an early Pottery Neolithic phase whose pottery is similar to those in settlements in the Euphrates and Tigris valleys (Iwasaki and Tsuneki 2003; Bartl *et al.* 2006; Nieuwenhuysen 2009). It mainly consisted of so-called Dark Faced Burnished Ware (DFBW). In the northern Levant, painted pottery is documented only in a later phase of ceramic production. At Shir it first occurs in levels dated to the second half of the seventh millennium (Nieuwenhuysen 2009), such as at Kerkh. Nearer the coast, painted pottery is found in later seventh millennium strata at Ras Shamra, Mersin/Yumuktepe, and the Amuq Valley (Braidwood and Braidwood 1960; Contenson 1992; Balossi 2006).

Concluding remarks

By the early 1990s, research at Tell Halula had identified an earlier ceramic stage characterized by an emphasis on mineral tempered pottery followed by a stage characterized mainly by pottery with plant temper (Faura 1996a). At the time it was speculated that Tell Halula had possibly undergone a locally distinct ceramic development, as the early pottery at this site contrasted starkly with what was then known of early seventh millennium pottery in the region. However, as we have shown in our brief review, subsequent research at seventh millennium sites across northern Levant and Upper Mesopotamia have fully supported the validity of the initial study at Tell Halula. Although much local diversity is seen, at a broader level, remarkable similarities are observed in the evolution of pottery production and consumption.

To summarize, the ceramic analysis at Tell Halula confirms the absence of painted pottery in Phase 1. Decoration was first used in

Phase 2, when *appliqué* decoration and the use of slips constituted the dominant forms of decoration, and when small proportions of painted pottery are first recorded. Finally, in Phase 3, the use of painted decoration increased in a context characterized by a more frequent use of impressed and incised decoration and the more frequent application of slips. These techniques appear both on their own and in combination. The painted decoration was concentrated on the upper part of the vessels. Chemical analysis has shown that the pigments were made mainly types of iron oxides (haematite and magnetite) (Table 6.4).

How can this evolution be explained? It would be incorrect, even simplistic, to envisage a progressive evolution of pottery technology in terms of a gradual improvement in the technological skill of the pottery makers. Indeed, the evolution of ceramic technology in our region shows that the hypothesis of an evolution from great simplicity to technological complexity, which formed the theoretical basis of the paradigm in the 1980s, was not correct. It is contradicted by the technical complexity of the earliest, mineral-tempered and carefully crafted pottery. Additionally, precursors to painted ceramic containers are known in the form of painted decoration in domestic and collective architecture already in the Pre-Pottery Neolithic period, as seen at several sites in Levant and Anatolia, including Tell Halula itself (Molist 1998; Molist *et al.* 2007). The stylistically elaborate architecture displays technical knowledge and a social use of painted designs long before pottery first appeared.

Significantly, some of the motifs used in the PPNB painted architecture, such as crosshatching, chevrons and shaded triangles, are used to decorate the first painted vessels, as we have seen at Tell Halula. These elements suggest that the evolution of ceramic production was not related to technical ability; rather the use and development of ceramic decoration in general, and painted pottery in particular, reflected social factors such as the use of the vessels and, above all, cultural values with regard to the role of stylistic elaboration of the material world. It should not be forgotten that the appearance and subsequent development of painted pottery took place at a time of profound economic and social changes. Our current studies on the appearance of painted pottery in this region are founded on this hypothesis and we hope to be able to develop it further in the near future.

Acknowledgements

We would like to express our gratitude to all the participants in the workshop for their valuable comments and productive discussions. We

are also grateful to the editors of the book for the revision and reading of the paper, and making so many interesting observations and comments. This paper was supported by the Spanish *Ministerio de Educación, Cultura y Deporte* (HAR 2013-43624 P), and the GRAMPPO research group (*Universitat Autònoma of Barcelona* and the *Generalitat de Catalunya* 2014 SGR-1248). M. Molist is an ICREA Academic.

Table 6.4. Tell Halula. Synthesis of the development of painted pottery containers in the first three ceramic phases

STRATIGRAPHIC LEVELS	Sector SS7	Sector SS14	Sector 1e	Sector 1 i	Sector 30	CERAMICS PHASES
23	IV					CERAMIC PHASE 1
24	V					6.900 - 6.600 CAL BC
25	VI					
26	VII					
27	VIII					
28	IX					
29	X	SS14-III 			 	CERAMIC PHASE 2
30	XI  	SS14-II 			 	6.600 - 6.300 CAL BC
31	XII	SS14-I 			 	
32	XIII  	SS14-I 	S1e-III  			
33			S1e-IV    	S1I-II 		CERAMIC PHASE 3
34			 	S1I-III   		6.300 - 6.050 CAL BC

Bibliography

- Akkermans, P. A., Boerma, J. A. K., Clason, A. M., Hill, S. G., Lohof, E., Meiklejohn, C., Le Mière, M., Molgat, G. M., Roodenberg, G. J., Waterbolck, W. and van Zeist, W. (1983) Bouqras revisited: preliminary report on a project in Eastern Syria. *Proceedings of the Prehistoric Society* 49, 335–372.
- Akkermans, P. M. M. G. (ed.) (1996) *Tell Sabi Abyad: The Late Neolithic Settlement*, Leiden/Istanbul, Nederlands Historisch-Archaeologisch Instituut.
- Akkermans, P. M. M. G. and Le Mière, M. (1992) The 1988 Excavations at Tell Sabi Abyad, a later Neolithic village in northern Syria. *American Journal of Archaeology* 96, 110–126.
- Akkermans, P. M. M. G., Cappers, R., Cavallo, C., Nieuwenhuys, O. P., Nilhamn, B. and Otte, I. (2006) Investigating the Early Pottery Neolithic of northern Syria: new evidence from Tell Sabi Abyad. *American Journal of Archaeology* 110/1, 123–156.
- Arimura, M., Balkan-Atli, N., Borrell, F., Cruells, W., Duru, G., Erim-Özdoğan A., Ibañez, J., Maeda, O., Miyake, Y., Molist, M., and Özbasaran, M. (2000) A new Neolithic settlement in the Urfa region: Akarçay Tepe, 1999. *Anatolia Antiqua* 8, 227–255.
- Balossi, F. (2006) *The Development of “Cultural Regions” in the Neolithic of the Near East. The Dark Faced Burnished Ware Horizon*, British Archaeological Report S1482, Oxford, Archaeopress.
- Bartl, K., Haidar, A. and Nieuwenhuys, O. P. (2006) Shir: a Neolithic site in the Middle Orontes Region, Syria. *Neo-Lithics* 1/6, 25–27.
- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavations in the Plain of Antioch. The Earliest Assemblages Phases A-J*, Oriental Institute Publication 32, Chicago, University of Chicago.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*,

- Unpublished PhD. thesis, Edinburgh, University of Edinburgh.
- Cauvin, J. (1977) Les fouilles de Mureybet (1971–1974) et leur signification pour les origines de la sédentarisation au Proche Orient. *Annual of the American Schools of Oriental Research* 44, 19–48.
- Cauvin, J. (1978) *Les premiers villages de Syrie-Palestine du IX^{ème} au VII^{ème} millénaire avant J. C.*, Lyon, Maison de l'Orient Méditerranéen.
- Cauvin, J. (1989) La Néolithisation au Levant et sa première diffusion. In O. Aurenche and J. Cauvin (eds) *Néolithisations*, 3–36, British Archaeological Report S516, Oxford, British Archaeological Reports.
- Cauvin, M.-Cl. and Cauvin, J. (1993) La séquence Néolithique PPNB au Levant Nord. *Paléorient* 19/1, 23–28.
- Contenson, H. de (1992) *Ras Shamra, Ougarit VIII, Préhistoire de Ras Shamra. Les sondages stratigraphiques de 1955 à 1976*. Paris, Éditions Recherche sur les Civilisations 2.
- Copeland, L. and Moore, A. (1985) Inventory and description of sites. In P. Sanlaville (ed.) *Holocene Settlement in North Syria*, 41–98, British Archaeological Report S238, Oxford, British Archaeological Reports/Maison de l'Orient Méditerranéen.
- Coqueugniot, E. (1999) Tell Dja'de el Mughara. In G. del Olmo Lete and J. L. Montero Fenollos (eds) *Archaeological of the Upper Syrian Euphrates the Tishrin Dam Area*, Proceedings of the International Symposium Held at Barcelona, January 28th – 30th 1998, 41–55, Barcelona, Aula Orientalis Supplementa 15.
- Coqueugniot, E. (2014) Dja'de (Syrie) et les représentations symboliques au IX^{ème} millénaire Cal BC. In C. Manen, Th. Perrin and J. Gulaine (eds) *La transition néolithique en Méditerranée*, 91–108, Paris, Éditions Errance.
- Cruells, W. and Nieuwenhuyse, O. P. (2004) The Proto-Halaf Period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Erim-Özdoğan, A. (2011) Sumaki Höyük. A New Neolithic Settlement in the Upper Tigris Basin. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research, Tigris Basin*, 19–60, Istanbul, Archaeology and Art Publications.
- Faura, J. M. (1996a) *Un conjunt ceràmic del VIII mil·lenni B.P. a la Vall de l'Èufrates: Les produccions de Tell Halula (Síria)*. PhD thesis, Trabajo de Tercer Ciclo Vol. 2, Universitat Autònoma de Barcelona.
- Faura, J. M. (1996b) La cerámica pre-Halaf. In M. Molist (ed.) *Tell Halula (Siria): un yacimiento Neolítico del valle medio del Éufrates, campañas de 1991 y 1992*, 91–97, Madrid, Instituto del Patrimonio Histórico Español.
- Faura, J. M. and Le Mièrre, M. (1999) La céramique néolithique du haut Euphrate Syrien. In G. Del Olmo Lete and J. L. Montero Fenollos (eds) *Archaeology of the Upper Syrian Euphrates The Tishrin Dam Area, Proceedings of the International Symposium held at Barcelona, January 28th–30th 1998*, 281–298, Barcelona, Aula Orientalis Supplementa 15.
- Hours, F. and Copeland, L. (1983) Les rapports entre l'Anatolie et la Syrie du Nord à l'époque des premières communautés villageoises de bergers et de paysans, 7600–5000 B.C. In T. Young, Jr, P. Smith and P. Mortensen (eds) *The Hilly Flanks and Beyond. Essays on the Prehistory of Southwestern Asia presented to R. Braidwood*, 75–90. Studies in Ancient Oriental Civilizations, Vol. 36. Chicago, University of Chicago Press.
- Hours, F., Aurenche, O., Cauvin, J., Cauvin, M. C., Copeland, L. (1994) *Atlas des sites du Proche Orient (14.000–5700 BP)*. Lyon, Maison de l'Orient Méditerranéen.
- Iwasaki, T. and Tsuneki, A. (2003) *Archaeology of the Rouj Basin. A regional Study of the transition from village to city northwest Syria*, Vol. 1, Al-Shark 2. Tsukuba, Department of Archaeology, Institute of History and Anthropology, University of Tsukuba.
- Le Mièrre, M. (1986) *Les premières céramiques du Moyen Euphrate*. Unpublished Doctoral Thesis. Université Lumière-Lyon 2.
- Lüth, F. (1990) *Zreyjiye. A new site with Halaf-Pottery in the Assad-Lake region, Syria*. Unpublished manuscript, pers. comm.
- Miyake, Y. (2005) Archaeological survey at Salat Cami Yanı. A pottery Neolithic Site in the Tigris Valley, Southeast Turkey. *Anatolica* 31, 1–18.
- Miyake, Y. (2011) Salat Cami Yanı. A Pottery Neolithic Site in the Tigris valley. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey: The Euphrates Basin*,

- 129–149, Istanbul, Archaeology and Art Publications.
- Molist, M. (ed.) (1996) *Tell Halula (Siria). Un yacimiento neolítico del valle medio del Éufrates. Campañas de 1991 y 1992*. Madrid, Ediciones del Ministerio de Educación y Ciencia.
- Molist, M. (1998) Espace collectif et domestique dans le néolithique des IX^{ème} et VIII^{ème} millénaires B.P. au nord de la Syrie: apports du site de Tell Halula (Vallée de l'Euphrate). In O. Aurenche and M. Fortin (eds) *Espace Naturel, Espace Habité en Syrie du Nord. (10th to 2nd millénaires av. J. C.)*, Lyon, Quebec, Université de Laval-Quebec y Gremo.
- Molist, M. (2001) Halula, village néolithique en Syrie du Nord. In J. Guilaine (ed.) *Communautés villageoises du Proche Orient à l'Atlantique (8000–2000 avant notre ère)* 35–52, Paris, Editions Errance.
- Molist, M. (2014) Le processus de consolidation de la néolithisation au proche Orient: Apports de l'étude du site de Tell Halula. In C. Manen, T. Perrin and J. Guilaine (eds) *La transition néolithique en Méditerranée*, 109–124, Paris, Editions Errance.
- Molist, M. and Faura, J. M. (1999) Tell Halula: Un village des premiers agriculteurs-éleveurs dans la Vallée de l'Euphrate. In G. Del Olmo Lete and J. L. Montero Fenollos (eds) *Archaeology of the Upper Syrian Euphrates, The Tishrin Dam Area. Proceedings of the International Symposium held at Barcelona, January 28th– 30th 1998*, 27–40, Barcelona, Aula Orientalis Supplementa 15.
- Molist, M., Anfruns, J., Borrell F., Clop, X., Cruells, W., Gomez, A., Guerrero, E., Tornero, C. and Saña, M. (2007) Tell Halula (Vallée de l'Euphrate, Syrie): Nouvelles données sur les occupations néolithiques. Notice préliminaire sur les travaux 2002–2004. In J. Abdul Massih (ed.) *Les résultats du Programme de formation à la sauvegarde du patrimoine culturel de Syrie 2002–2004, Cultural Héritage Training Program*, Documents d'archéologie syrienne 11, 21–52, Damas, Ministère de la culture, Direction générale des antiquités et des musées.
- Molist, M., Anfruns, J., Borrell, F., Buxó, R., Clop, X., Cruells, W., Faura, J. M., Ferrer, A., Gomez A., Guerrero, E., Saña, M., Tornero, C. and Vicente, O. (2013) Tell Halula: new data on VII and VI millennia cal BC occupation in Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. P. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 443–453, Turnhout, Brepols.
- Moore, A. (1975) The excavation of Abu Hureyra in Syria: a preliminary report. *Proceedings of the Prehistoric Society* 41, 50–77.
- Moore, A. (1985) The Development in Neolithic in the Near East. *Advances in World Archaeology* 3, 1–69.
- Moore, A., Hillman, G. and Legge, A. (2000) *Village on the Euphrates. From Foraging to Farming at Abu Hureyra*, Oxford, Oxford University Press.
- Nieuwenhuyse, O. P. (2009) The Late Neolithic ceramics from Shir. A first assessment. *Zeitschrift für Orient-Archäologie* 2, 310–356.
- Nieuwenhuyse, O. P., Akkermans, P. M. M. G. and van der Plicht, J. (2010) Not so coarse, nor always plain. The earliest pottery of Syria. *Antiquity* 84, 71–85.
- Nishiaki, Y. and Le Mièrre, M. (2005) The oldest pottery Neolithic of Upper Mesopotamia: new evidence from tell Seker alAheimar, the Khabur, northeast Syria. *Paléorient* 31/2, 55–68.
- Nishiaki, Y. and Matsutani, T. M. (2003) *Tell Kosak Shamali Vol II*, Tokyo, University Museum, University of Tokyo.
- Özbaşaran, M. and Duru, G. (2011) Akarçay Tepe, A PPNB and PN Settlement in Middle Euphrates, Urfa. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey: The Euphrates Basin*, 165–202, Istanbul, Archaeology and Art Publications.
- Özdoğan, M. (2011) Mezraa Teleilat. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey: The Euphrates Basin*, 203–260, Istanbul, Archaeology and Art Publications.
- Rice, P. (1987) *Pottery Analysis*, Chicago, University of Chicago Press.
- Seeden, H. (1982) Etnoarchaeological reconstruction of Halafian occupational units at Shams ed-Din Tannira. *Berytus* 30, 55–96.
- van der Plicht, J., Akkermans, P. M. M. G., Nieuwenhuyse, O. P., Kaneda, A. and Russell, A. (2011) Tell Sabi Abyad, Syria: radiocarbon chronology, cultural change, and the 8.2 ka event. *Radiocarbon* 53/2, 229–243.

Analysis of paint on prehistoric pottery from Late Neolithic Tell Arbid Abyad (north-eastern Syria)

Dalibor Všíanský and Inna Mateiciucová

Abstract

This paper summarises the results of investigations of paint on Late Neolithic pottery from Tell Arbid Abyad in north-east Syria. The research focused on the composition of pigments, but also considered the production technology of painted pottery. We analysed the paint and fabric of ten sherds. The analysis revealed that the principal pigments used were iron compounds. Painting after firing the pottery, followed by refiring was proved in some cases. The presence of minerals formed due to the firing of calcium-rich clay (gehlenite, diopside) documents firing temperatures above 850–900°C. However, the lustrous paints of the sample no. 6 could not have been preserved at temperatures above 850°C. This paper follows the previous petrographic investigation of the mineral and chemical composition of the pottery fabric from Tell Arbid Abyad (Gregerová *et al.* 2013).

Introduction and aims of the study

Although the pioneering applications of scientific methods – *e.g.* scanning electron microscopy and microanalysis (SEM/EDS), X-ray diffraction (XRD), and petrographic analysis – on pigment studies in archaeology were published as early as the 1970s (Noll *et al.* 1975; Noll 1976), it is still fair to say that research on Near Eastern Neolithic pottery pigments is in the beginning stages of development (Matson 1983, 621–622; Courtois and Velde 1984; Steinberg and Kamilli 1984; Noll 1991, 233–271; Van As *et al.* 1998, 34–35, 42–43; Gilbert 2004; Robert *et al.* 2008). In recent years, the microchemical composition of pigments by Laser ablation-inductively coupled plasma-mass

spectrometry (LA-ICP-MS) has been added to the repertoire of useful scientific methods that contribute to our understandings of early pottery (Speakman and Neff 2002; Diebold *et al.* 2005).

Effective interdisciplinary communication is necessary to translate the results of technical scientific analyses into forms that both archaeologists and researchers from natural sciences can understand and use appropriately. Unfortunately, to date, few studies on Near Eastern Late Neolithic pottery deal with pigment composition, pottery colour shades, and the mineral composition of pigments (Van As and Jacobs 1989, 224–226; Nieuwenhuyse *et al.* 2001; Gómez Bach *et al.* 2012; Gómez *et al.* 2014; Faura and Molist, this vol.).

The paper contributes to the emerging field of Late Neolithic Near Eastern pottery pigment studies through analyses of ten pottery samples from the Tell Arbid Abyad, excavated from 2006 to 2010. This Late Neolithic site is situated in the Upper Khabur region in north-east Syria, c. 30 km south-west of the city Al-Qamishli, and 12 km east of Chagar Bazar. Tell Arbid Abyad has been severely affected by agricultural activities, and today it is only 2 m high and c. 0.5 ha in extent. Nevertheless, radiocarbon dates and preliminary artefact analyses show that the site was inhabited from the Pre-Halaf, into the Proto and Early Halaf and finally the Middle/Late Halaf (Mateiciucová 2010; Mateiciucová and Wilding in prep.). Determining the character and continuity of the settlement is an objective of the current research.

The examination of pigments follows on a previous petrographic and mineralogical analysis of the fabric of the Proto-Halaf and Early Halaf pottery from the site (Gregerová *et al.* 2013). In this paper, we focus on the pigments used for decorating the Late Neolithic pottery. Unfortunately, the results are constrained by the limited number of samples that could be exported from Syria. The research questions for analysis include the following:

1. What was the chemical and mineralogical composition of the paint used to decorate the pots?
2. Are different colour shades caused by different composition of pigments or by different methods of firing?
3. Does the composition of red pigments differ among the wares?
4. Was the paint applied before or after firing? Were the vessels re-fired after having been painted?
5. What is the origin of the diamond-shaped “decoration” of sample no. 1? Are the diamonds deliberately applied decoration, or are they the result of post-deposition degradation of the paint on the sherd? That is, are the diamonds a negative of an original

unpreserved, crosshatched painted design? (For example, see Nieuwenhuyse 2007, Pl. 94:10.)

Material

In total, ten pieces of painted pottery of five groups were examined. They included the following sherds ([Table 7.1](#)):

- two samples of Standard Ware (SW)
- two samples of Standard Fine Ware (SFW)
- three samples of Halaf Fine Ware (HFW)
- one sample of Standard Fine Ware/Halaf Fine Ware (SFW/HFW)
- one sample of Fine Painted Ware (FPW) one sample of Orange Fine Ware (OFW)

This ceramic classification is based on the terminology defined by Le Mière and Nieuwenhuyse (1996) and Nieuwenhuyse (2007, 69–101) for the pottery from the PreHalaf to the Early Halaf periods at Tell Sabi Abyad. [Figure 7.1](#) ([Colour Pl. 11](#)) shows pictures of the analysed samples.

Methods

Small bits of paint were carefully scratched from each sherd under an optical microscope. Each of these samples, as well as the fabric of four sherds, was examined by three independent energy-dispersive spectroscopy (EDS) analyses. The EDS analyses were conducted on carbon-coated samples using a JEOL 6490 LV low-vacuum electron microscope. The results recalculated on oxides, presented in [Table 7.3](#) (below), represent an arithmetic mean of three independent analyses. Scratched paint and the fabric of five sherds were also analysed by X-ray diffraction (XRD). The XRD analyses were complicated by the difficulty of removing the paint without contamination with the underlying fabric and the generally very small amount of each sample. Both paint and fabric samples were pulverized using an agate mortar and pestle. The mineral composition of the pulverized samples was identified by XRD on a Bruker D8 Advance system equipped with copper tube ($\lambda_{k,\alpha} = 1.5418\text{\AA}$), variable slits and PSD detector at $\Theta - \Theta$ reflexion geometry. Step size – $0.02^\circ 2\theta$, time per step – 376 s.

The painting identified by EDS as bitumen – and a comparative sample of bitumen from a natural source close to the recent Syrian city Deir ez Zor – were additionally extracted by chloroform and analysed by gas chromatography-mass spectrometry (GC-MS). The analyses were performed using a Shimadzu GCMS 2010 equipment.

The list of analysed samples and conducted analyses conducted are presented in [Table 7.2](#).

Results

Sample no. 1 (SFW/HFW, [Fig. 7.1, 1](#))

The micro chemical composition of the diamond-shaped “decoration” and the sherd fabric identified by EDS does not differ significantly – see [Table 7.3](#). Differences in mineral composition are caused by firing of the sherd fabric (presence of diopside, melilite/gehlenite, and hematite in the fabric due to firing). The mineral composition of diamond-shaped “decoration” (illite/muscovite, kaolinite, calcite, quartz) corresponds to an unfired soil material.

There was also paint on the neck of the vessel. Based on XRD results, which revealed the presence of minerals formed during firing (diopside, melilite/gehlenite), indicating that this painting was thermally altered (it was fired).

Sample no. 2 (SW with red slip; [Fig. 7.1, 2](#))

Results of EDS analyses – see [Table 7.3](#). The micro chemical composition corresponds to a calcareous clay that contains iron. This suggests that potters preferably selected layers of clay enriched with iron compounds for the red-slip pottery.

Sample no. 3 (HFW, black painted, [Fig. 7.1, 3](#))

The results of microchemical (EDS) analysis ([Table 3](#)) show that sample no. 3, like sample no. 2, was painted with clay containing iron compounds. Mineral composition of paint and fabric identified by XRD ([Fig. 7.2](#)) corresponds to similar initial material, but different firing conditions. Lower concentrations of melilite/gehlenite and diopside in paint imply lower firing temperature or shorter soaking time. The illite/muscovite identified in the paint derives from later contamination from soil.

In sample no. 3, a content of 0.5 percent Cr_2O_3 was identified. The source of chromium may be found in minerals of basic (ultrabasic) rock fragments, e.g. spinels. Chromium itself does not affect colour in this case.

Sample no. 4 (SFW, dark brown/black painted, [Fig. 7.1, 4](#)), **Sample no. 5** (SFW, orange/red painted, [Fig. 7.1, 5](#) and **Sample no. 6** (HFW, dark brown painted, lustrous, [Fig. 7.1, 6](#))

The microchemical composition of paint samples no. 4 and 5 is almost identical ([Table 7.3](#)); thus the differences in colour ([Fig. 7.1](#)) must be

caused by different firing conditions. The red paint on sample no. 5 is a result of oxidizing firing (Fig. 7.1), while sample no. 4 was initially exposed to oxidizing then reducing, and finally oxidizing conditions again.

Table 7.1. Tell Arbid Abyad. Description of analysed pottery samples

Sample no. 1 (Fig. 7.1, 1)

Standard Fine Ware/Halaf Fine

Ware (body fragment)

Temper: no visible

Firing: incompletely oxidized, dark core

Exterior: cream, smoothed, painted *Interior*: cream, smoothed

Painting: diamonds – brownish grey colour or remains of dark brown/black pigment

Decoration: diamonds arranged to diagonal rows (originally diagonal crosshatching?)

Sample no. 2 (Fig. 7.1, 2)

Standard Ware (body fragment)

Temper: small plant temper and small anorganic inclusions (sand?)

Firing: incompletely oxidized, dark grey core

Exterior: red-slipped, burnished

Interior: grey, scraped

Painting: brownish red slip

Decoration:

Sample no. 3 (Fig. 7.1, 3)

Halaf Fine Ware (body fragment)

Temper: no visible

Firing: incompletely oxidized, light grey core

Exterior: cream, self slip?, burnished, painted

Interior: cream, self slip?, scraped and smoothed

Painting: black, mat

Decoration: vertical crosshatching and horizontal bands

Sample no. 4 (Fig. 7.1, 4)

Standard Fine Ware (body fragment)

Temper: small plant inclusions, small white anorganic inclusions (<0.5 mm)

Firing: incompletely oxidized, light grey core

Exterior: cream to buff, smoothed, painted

Interior: grey, scraped and smoothed

Painting: dark brown/black, mat

Decoration: vertical crosshatching and horizontal bands

Sample no. 5 (Fig. 7.1, 5)

Standard Fine Ware (body fragment)

Temper: no plant temper visible, *Firing:* completely oxidized
very small amount of white anorganic inclusions (rounded)

Exterior: cream, smoothed, painted *Interior:* cream, smoothed

Painting: orange/red, mat

Decoration: diagonally crosshatched lozenges in horizontal bands

Sample no. 6 (Fig. 7.1, 6)

Halaf Fine Ware (body fragment with carination)

Temper: no visible *Firing:* completely oxidized

Exterior: cream, burnished, painted *Interior:* cream, smoothed

Painting: dark brown, lustrous

Decoration: horizontal zigzag parallel lines alternating with diagonal crosshatching

Sample no. 7 (Fig. 7.1, 7)

Halaf Fine Ware (base fragment)

Temper: small white anorganic inclusions (< 0.5 mm) *Firing:* incompletely oxidized, light grey core

Exterior: orange, smoothed, painted *Interior:* orange, scraped

Painting: dark brown, mat

Decoration: horizontal crosshatching

Sample no. 8 (Fig. 7.1, 8)

Fine Painted Ware (body fragment)

Temper: small amount of an anorganic white and reddish inclusions (1–3 mm rounded particles) *Firing:* completely oxidized

Exterior: light orange, burnished, painted *Interior:* light orange, smoothed

Painting: dark red, mat

Decoration: alternating diagonal lines

Sample no. 9 (Fig. 7.1, 9)

Orange Fine Ware (body fragment)

Temper: large amount of crushed minerals and rocks < 3 mm (white, dark grey/black, dark red), mainly carbonates and siltstones

Exterior: orange, smoothed, painted *Interior*: light orange, scraped

Painting: dark orange, mat

Decoration: diagonal lines

Sample no. 10 (Fig. 7.1, 10)

Standard Ware (rim fragment)

Temper: large amount of large plant inclusions

Firing: incompletely oxidized, light grey core

Exterior: cream, smoothed

Interior: cream, smoothed

Painting: black bitumen, mat

Decoration: line on the rim edge

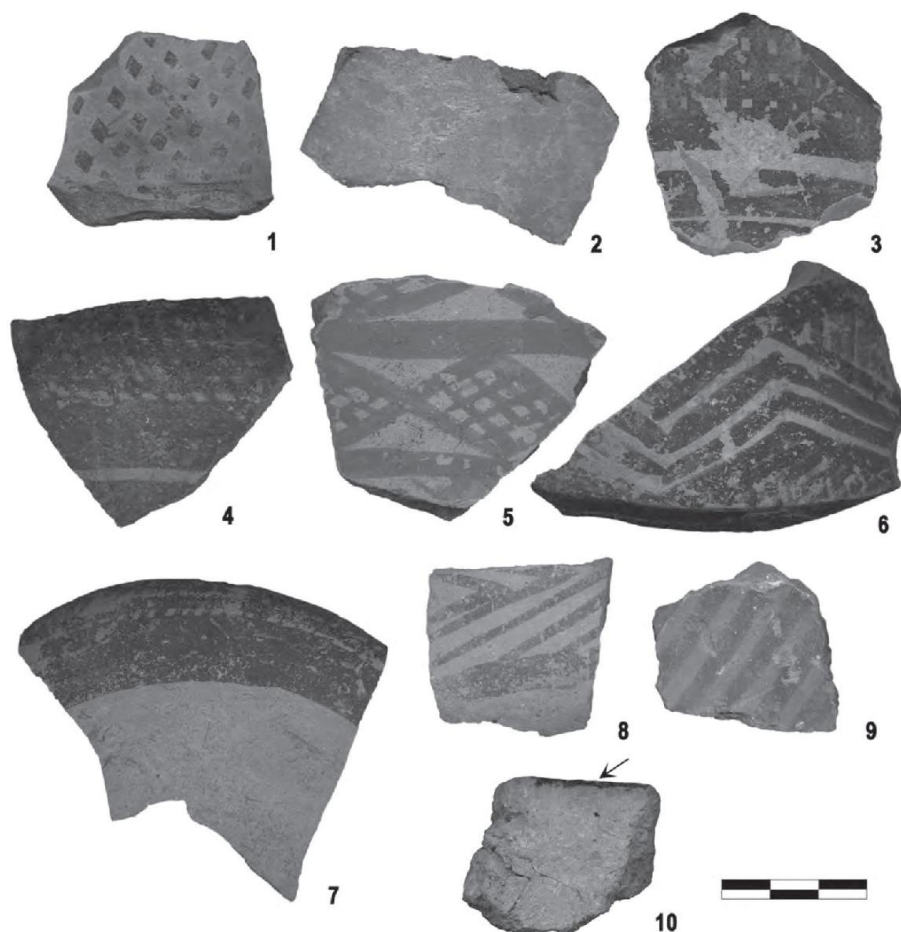


Figure 7.1. (Colour Pl. 11). Tell Arbid Abyad. Photographs of analyzed pottery samples: 1.

Standard Fine Ware/Halaf Fine Ware; 2. red slipped Standard Ware; 3, 6, 7. Halaf Fine Ware; 4, 5. Standard Fine Ware; 8. Fine Painted Ware; 9. Orange Fine Ware; 10. bitumen painted Standard Ware.

Table 7.2. Tell Arbid Abyad. List of conducted analyses Sample no.

Sample no.	Inventory no.	Ware	Colour of painting	EDS of painting	EDS of fabric	XRD of painting	XRD of fabric	GC-MS of painting
1	ARBA-S-20	SFW/HFW	brownish grey	+	+	+	+	-
2	ARBA-S-09-14	SW	red slip	+	-	-	-	-
3	ARBA-S-25	HFW	black	+	-	+	+	-
4	ARBA-S-44	SFW	dark brown/black	+	-	-	-	-
5	ARBA-S-38	SFW	orange/red	+	-	-	-	-
6	ARBA-S-37	HFW	dark brown	+	-	-	-	-
7	ARBA-S-42	HFW	dark brown	+	+	+	+	-
8	ARBA-08-S-6	FPW	dark red	+	+	+	+	-
9	ARBA-S-13	OFW	dark orange	+	-	+	-	-
10	ARBA07-09-257-193	SW	black	+	-	-	-	+

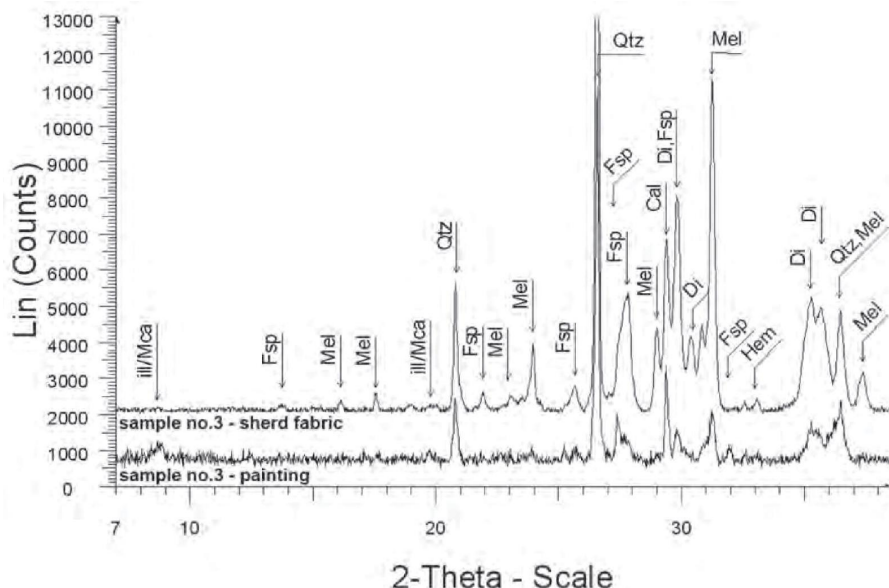


Figure 7.2. Tell Arbid Abyad, Sample 3. Comparison of diffractograms of paint and fabric. Ill/Mca = ilite/mica, Qtz = quartz, Fsp = feldspars, Cal = calcite, Di = diopside, Mel = melilite (gehlenite), Hem = hematite.

The paint of sample no. 6 displays higher aluminium content, as well as an iron content that is more than twice higher than the iron content in samples 4 and 5. Although the iron content in the paint of sample no. 6 is notably higher than in sample 5, it is not red, but dark brown and lustrous. This is a result of at least partly reducing firing. According to Winter (1959, 20) the lustre reaches its maximum at c. 850°C (Noll *et al.* 1975, 607). The relatively high aluminium content of sample no. 6 corresponds to a higher content of clay minerals in the initial material. This implies a careful choice and preparation of clay material by washing, which also contributed the lustrous surface of the painting (Noll 1991, 136–137, 161). Results of EDS analyses of

samples 4, 5, and 6 are summarized in [Table 7.3](#).

Sample no. 7 (HFW, dark brown painted, [Fig. 7.1, 7](#))

The contents of aluminium and (especially) iron are markedly higher in the paint than in the sherd fabric ([Table 7.3](#)). This suggests that the material for paint was more carefully selected than the clay fabric. Both the iron content and colour of the paint of samples no. 6 and 7 are similar, implying the use of a similar clay source and firing conditions.

Comparison of XRD results of paint and fabric show few qualitative differences, except that the paint contains minerals from the clay. The higher content of diopside in the fabric corresponds to a higher firing temperature or longer soaking time. The high CaO content (15.12%) probably reflects the use of carbonate-rich raw material.

Sample no. 8 (FPW, dark red painted, [Fig. 7.1, 8](#))

The paint on this sherd has the greatest iron content among the samples, more than seven times larger than in the fabric. This suggests that the paint material was very carefully chosen and prepared by washing. However, the enrichment of the paint with iron oxides or hydroxides cannot be excluded as well. The dark red colour of the painting is a result of extremely high iron content ([Table 7.3](#)) and oxidizing firing.

Only quartz and hematite ($\alpha\text{-Fe}_2\text{O}_3$) in the paint were identified XRD in the paint ([Fig. 7.3](#)). Additional clay minerals may have been present in the unfired paint, but were transformed into amorphous compounds (e.g. metakinite) that cannot be identified by this approach. No other diagnostic mineral formed during firing was found. Hence, the firing conditions of the sherd as well as the fabric may not be identified exactly.

Sample no. 9 (OFW, dark orange painted, [Fig. 7.1, 9](#))

The FeO content of the paint is about 2.5 times higher than in the fabric ([Table 7.3](#)). In comparison to sample no. 8, the paint colour of sample no. 9 is not as dark. Its colour shade is closer to sample no. 5, which has a slightly higher iron content. Like sample no. 8, firing conditions of paint and fabric of sample no. 9 may not be compared based on XRD analysis results. The high aluminium content in the paint reflects a careful processing of the raw material, i.e. the separation and use of the fine clay fraction.

Sample no. 10 (SW, black painted, [Fig. 7.1, 10](#))

The black paint was examined by EDS ([Table 7.3](#)). The results clearly

show that it is formed by bitumen. Carbon (CO₂ is a result of recalculation on oxides) and sulphur are the main elements identified in the paint by EDS. Bitumen painting is marked with an arrow in Figure 7.1.

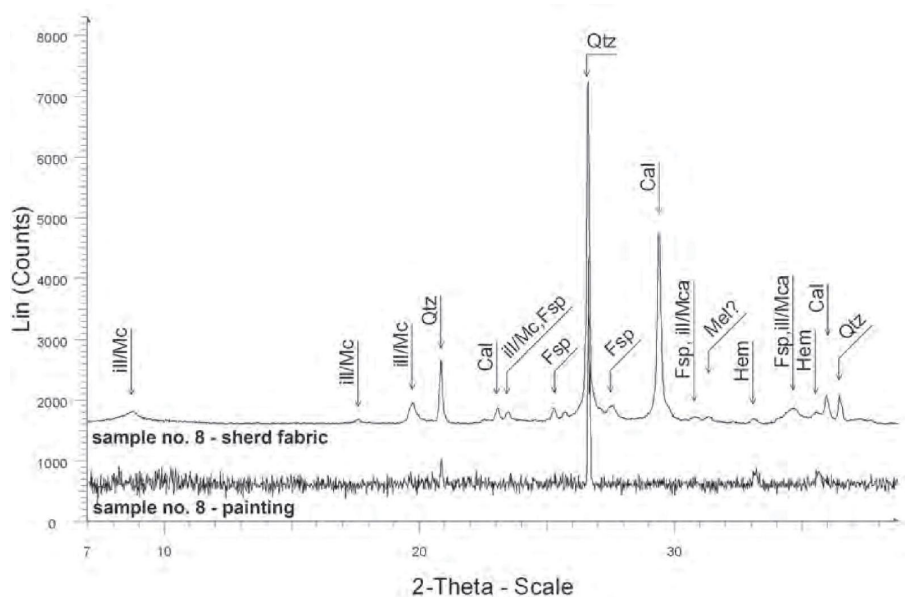


Figure 7.3. Tell Arbid Abyad, Sample 8. Comparison of diffractograms of paint and fabric. Ill/Mca = ilite/mica, Qtz = quartz, Fsp = feldspars, Cal = calcite, Di = diopside, Mel = melilite (gehlenite), Hem = hematite.

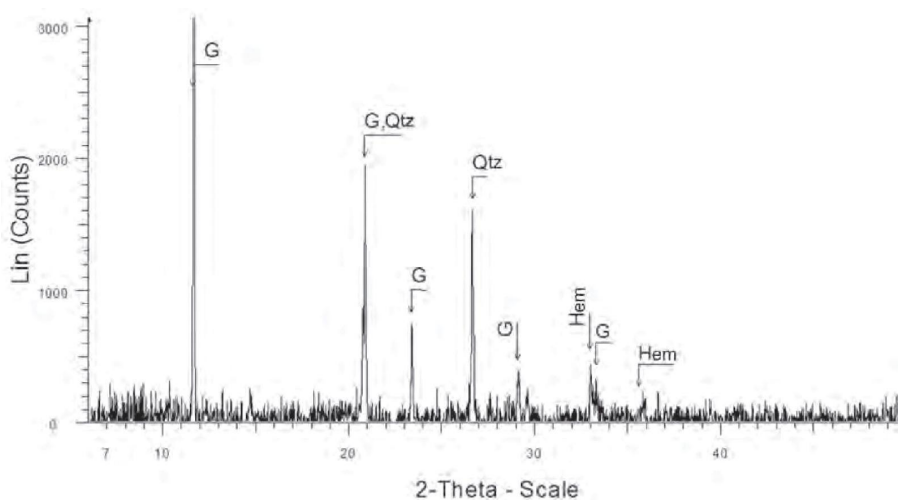


Figure 7.4. Tell Arbid Abyad, Sample 9. Diffractogram of the painted surface. G = gypsum, Qtz = quartz, Hem = hematite.

Table 7.3. Tell Arbid Abyad. Results of micro chemical (SEM/EDS) analyses (F = Fabric, P = Paint)

Sample no.	1	2	3	4	5	6	7	8	9	10				
Ware Painting colour	SF'W/HF'W brownish grey	SW red slip	HF'W black	SF'W dark brown/ black	SF'W orange/ red	HF'W dark brown	HF'W dark brown	FPW dark red	OF'W dark orange	SW bitumen				
Formula	diamonds	F	P	P	P	P	P	F	P	F	P	P		
Na ₂ O	0.78	0.70	0.91	1.20	1.84	1.58	0.59	0.73	0.71			0.45	0.28	
MgO	6.20	6.11	3.99	5.55	3.93	5.08	4.31	3.40	8.49	2.04	3.54	1.54	2.25	0.30
Al ₂ O ₃	15.30	15.37	16.74	15.44	15.51	17.06	27.70	18.41	13.64	17.78	20.67	27.50	18.09	0.43
SiO ₂	60.16	62.83	51.65	51.99	56.89	56.99	43.77	50.08	49.44	40.40	61.76	48.47	56.74	1.13
P ₂ O ₅	1.17	—	0.85	1.46					0.59			1.18	2.38	
SO ₃					0.69		0.72							3.34
K ₂ O	6.17	4.29	5.33	5.06	6.82	6.18	2.91	4.48	2.50	5.10	7.40	4.81	6.88	0.15
CaO	2.05	4.97	9.31	6.16	5.65	4.67	2.81	3.41	15.12	2.77	1.53	3.56	6.87	0.34
TiO ₂	0.61	0.47	1.05	0.82	0.81	0.78	1.30	1.55	0.65	0.65	0.91	1.57	1.70	
Cr ₂ O ₃				0.50										
FeO	7.14	5.25	9.77	11.30	7.88	7.52	15.92	17.28	8.86	30.10	4.19	11.35	4.64	
CO ₂	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93.97

We attempted to compare the paint with a sample of natural bitumen from sources close to the Syrian city Deir ez Zor, but this was not possible due to the small amount of paint.

Interpretation and discussion

The material research of pottery sherds and their paint brought numerous results. The processed data allow us to answer most of the questions stated in the introduction. The suggested answers are given below:

1. What was the chemical and mineralogical composition of the paint used to decorate the pots?

Nine of ten samples are painted with iron compounds; no manganese compounds were identified. This result corresponds to the findings from Tell Sabi Abyad, which was inhabited in the same period as Tell Arbid Abyad (Van As and Jacobs 1989; Van As *et al.* 1998; Robert *et al.* 2008, 739–740). The analyses of paints from other Late Neolithic sites of Mesopotamia also show the preference for pottery decoration with iron oxides (Noll *et al.* 1975, 604; Noll 1991, 238–246; Nieuwenhuyse *et al.* 2001, 158, 160; Robert *et al.* 2008, 742–745). Pottery painted with manganese compounds seldom occurs, and then only on the pottery of the Late Halaf (Gómez Bach *et al.* 2012, 33; Gómez *et al.* 2014, 6 and 8).

No qualitative difference in SFW/HFW, HFW, FPW and OFW paint was identified.

The basic material of the paints was clay, and the pigmenting compound is a smaller portion (after recalculation c. 10–30% FeO).

Clay layers rich in Fe compounds (limonite – a mixture of Fe oxihydroxides) were probably found in outcrops near the site. Local inhabitants could distinguish these clays from the others by

characteristic colour – usually pale yellow to orange-red.

In all analysed samples, iron oxide components are higher in the paint than in the fabric. On the other hand, the carbonate compounds are higher in the fabric, with the exception of sample no. 8 (FPW), which may be caused by the presence of secondary carbonates on the surface. The FeO content in the fabric of sample no. 8 content is low in comparison to samples no. 1, 7, and 9, and indicates that the paint material was very carefully chosen and processed with a probable aim to increase the content of iron.

The composition of pigment in sample no. 9 (OFW) is the same as in SFW, HFW, and FPW. What do these results mean? Why were both black-on-white OFW vessels and Standard Fine Ware (Nieuwenhuys, this vol.) as well as Orange Fine Ware were produced? OFW differs in fabric structure and colour and strictly follows the Red canon in the paint. Does it follow the tradition of red-slipped Standard Ware and red painted Standard Ware of Proto-Hassuna and Pre-Halaf periods? According to Marie Le Mièrre, the origin of OFW should be searched in the Khabur region (Le Mièrre and Picon 2008). May OFW be considered a local tradition of painted pottery, which continued in opposition to a new “ideal” (Nieuwenhuys 2007, 219-223)?

2. Are different colour shades caused by different composition of pigments or by different firing technology?

Colour differences of individual sherds are caused by different mineral composition of paint and by different firing conditions (Matson 1945, 22). Red colour is due to oxidizing firing, while the black paint one on the light surface is a result of oxidizing, reducing, and oxidizing again at the end of the firing (Winter 1959, 33-42; Noll *et al.* 1975, 602; Van As and Jacobs 1989, 226; Van As *et al.* 1998, 35). Dark red colour reflects higher Fe content (see sample no. 8 in [Table 7.3](#)). Firing temperature of the samples no. 8 and no. 9 were relatively low because no calcium silicates that form due to firing of diopside, melilite were found in the paintings.

Sample no. 8 belongs to Fine Painted Ware, which should be technologically different from the other groups. However, its material composition does not display significant differences. Firing conditions of paint and fabric in samples no. 8 and 9 may not be exactly compared by XRD because only quartz and hematite (Fe_2O_3) was identified in the paint ([Fig. 7.3](#)). Micro chemical analyses show the presence of significant amounts of other elements than just Si and Fe. Therefore, it may be assumed that there are no silicate minerals present in the paint because the firing temperature was too low (below 850°C) for their formation. Clay minerals are probably present

there in form of metacalcite and possibly metakaolinite, which are amorphous and hardly detectable by XRD. This hypothesis might be verified by a set of experiments.

3. Does the composition of red pigments of red-slipped Standard Ware (Sample no. 2), Standard Fine Ware/Halaf Fine Ware (sample no. 5), Fine Painted Ware (sample no. 8), and Orange Fine Ware (sample no. 9) differ?

There are no significant qualitative differences in chemical composition. The surface colour (red shade) differences are caused by considerably different quantitative iron contents and oxidizing firing conditions. The highest iron content is present in sample no. 8 (30.1 wt. % recalculated on FeO).

4. Was the paint applied before or after firing? Were the vessels re-fired after they had been painted?

In at least in two cases (samples of HFW no. 3 – black painted and no. 7 – dark brown painted); the painting was probably fired for lower temperature or shorter time than the sherd. The reason for this assumption is the lower content of newly formed aluminosilicates (gehlenite and diopside) in the paints than in the body. Gehlenite and diopside belong among so called ceramic minerals, which form during firing at the temperatures above 850–900°C. Therefore it is very probable that these pots were fired twice.

According to Winter (1959, 22, 27) to achieve a solid connection between the sherd surface and the paint the ceramic would have to be painted before firing. This *chaîne opératoire* is considered to be a normal way to paint a Halaf pot; however, the paints of samples no. 3 and no. 7 flake off.

In the case of sherds no. 8 (FPW) and no. 9 (OFW) we cannot tell whether the paint was fired with the sherd or refired because there are no minerals diagnostic of temperature.

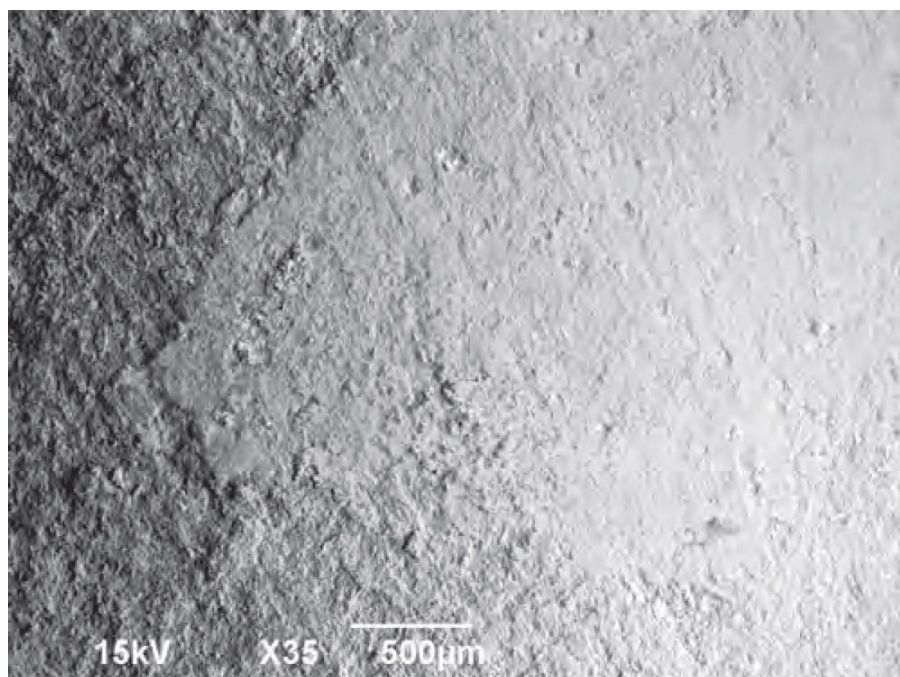
5. What is the origin of the diamond-shaped “decoration” of sample no. 1? Was it a deliberately applied or did it form secondarily during the degradation of the sherd in the soil?

It has been clearly proven that the diamond-shaped “decoration” was not fired. There are two possible interpretations of the origin of the diamonds: it is real decoration, or it is dirt. If it were the first possibility, the diamond-shapes must have either been painted or scratched. It is unlikely that the motifs were scratched, as this technique has so far not been attested for decorating Early Halaf ceramics. Painting is also improbable due to the geometrical regularity

of the diamonds; and the occurrence of “paint” only in sharply bordered diamonds (Fig. 7.5), not in other parts of the sherd, could support this theory.

As to the second possibility, we observe that the chemical composition of the diamonds is similar to the sherd fabric (mineralogical composition differs due to firing of the sherd). Qualitative composition of the material of diamonds corresponds to the composition of local sediment. There have been other sherds in the same site with coats of “dirt” between the original decoration, which was eroded. But, these sherds have significantly less regular decoration than sample no. 1. Despite that, could sample no. 1 be the same case? Was the original decoration eroded post-deposition? This hypothesis is supported by finding remains of black painting on the same sherd. It seems improbable that the vessel was painted before firing and afterwards again. A SEM image of a diamond “decoration” is shown in Fig. 7.4. It may be clearly seen that the material of the “decoration” forms a relatively thick layer on the sherd’s surface.

The theory that the original painting was completely eroded is also supported by fact that this sort of motif normally does not occur in Standard Fine Ware and Halaf Fine Ware pottery. On the other hand, painted motifs with diagonal crosshatching are commonly present on both SFW and HFW. Therefore, we conclude that the diamonds are formed by the erosion of painted crosshatching.



Conclusion

The paint and fabric of ten Late Neolithic sherds from Tell Arbid Abyad, NE Syria were analysed using a combination of SEM/EDS and XRD methods (Tables 7.1–7.3). This approach explained the origin of colour shades and methods of painting, raw material selection, and processing and firing technology. Also the sequence of painting and firing procedures was revealed.

Generally, the high aluminium content together with high K_2O and low SiO_2 contents reflects the application of clay – rich (illite) raw material for the paint preparation. On the other hand, the different Al_2O_3/SiO_2 ratio in the sherd fabric may be caused by the presence of other aluminosilicates, e.g. feldspars.

Paintings of the samples nos 2–9 were thermally altered (fired). The diamond shaped “decoration” of sample no. 1 is unfired soil material. Sherd no. 10 was painted with bitumen.

The results clearly show that the colour of the paint need not indicate differences in material composition when iron compounds are the colorizing element. Rather, the main factor determining colour of the painting is the firing conditions – oxidizing versus reducing. This conclusion is nothing new and confirms earlier research (Durand-Gréville 1891, 101, 110; Binns and Fraser 1929, 2 and 3, 6–8; Shepard 1959, 38–40; Noll *et al.* 1975, 602; Van As and Jacobs 1989, 226).

The pigments of samples nos 2–9 were most likely made of limonite or hematite. The application of magnetite as the principal colouring compound is not very probable, because magnetite is not as common as limonite (mixture of Fe oxihydroxides) and hematite in soils and clays. Also the pigment composition of sample no. 9 belonging to the Orange Fine Ware group is the same as that of samples nos 2–8.

Sample no. 8 of Fine Painted Ware with dark red paint has much higher iron content than other samples. Paint on samples no. 3 and no. 7, both Halaf Fine Ware, were probably fired at lower temperature or shorter time than the sherd. This assumption is based on the contents of newly formed minerals in the paints. It is very probable that the pots were fired twice in this case. This finding should be verified on a larger number of samples, because it would imply a considerably more complex *chaîne opératoire* during the Halaf period than is generally accepted and than in the previous Proto-Halaf time. The best way to prove this theory would be through conducting a series of experiments. The present research should continue with analyses of larger sets of samples to derive general conclusions.

Acknowledgements

Thanks are due to Lubomír Prokeš for GC-MS analyses of bitumen.

Bibliography

- Binns, C. F. and Fraser, A. D. (1929) The genesis of the Greek Black Glaze. *American Journal of Archaeology* 33/1, 1–9.
- Courtois, L. and Velde, B. (1984) Recherches comparées sur les matériaux et les techniques de peintures céramiques de Mésopotamie (VI–Ve millénaires). *Paléorient* 10/2, 81–93.
- Diebold, B. H., Speakman, R. and Glascock, M. D. (2005) Laser Ablation-ICP-MS analysis of Late Neolithic ceramic pigments from the Amuq Plain, Turkey. In R. Speakman and H. Neff (eds) *Laser Ablation ICP-MS in Archaeological Research*, 125–137, Albuquerque, University of New Mexico Press.
- Durand-Gréville, E. (1891) Couleur du décor des vases Grecs. *Revue Archéologique* 18, 99–118.
- Gilbert, B. (2004) Analysis of the painting on six Halaf Period pottery samples from Tell Amarna (Syria). In Ö. Tunca, M. Molist and W. Cruells (eds) *Tell Amarna (Syrie) I. La période de Halaf*, 213–219. Louvain/Paris/Dudley (MA), Peeters.
- Gómez Bach, A., Calvo Del Castillo, H., Cruells, W., Strivay, D. and Molist, M. (2012) Black, red and white: characterizing Neolithic ceramic productions in middle Euphrates Valley. In R. Matthews and J. Curtis (eds) *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East (ICAANE), British Museum and UCL, London, 12–16 April 2010*, Vol. 3, 527–536, London, British Museum.
- Gómez, A., Cruells, W. and Molist, M. (2014) Late Neolithic pottery productions in Syria. Evidence from Tell Halula (Euphrates valley): A technological approach. In M. MartínónTorres (ed.) *Craft and Science: International perspectives on archaeological ceramics*, Doha, Qatar, Bloomsbury Qatar Foundation <http://dx.doi.org/10.5339/uclq.2014.cas.ch14> (accessed 26.01.2016), 1–11.
- Gregerová, M., Mateiciucová, I. and Všianský, D. (2013) Rethinking the making of Late Neolithic pottery: an example from Tell Arbid Abyad (Northeast Syria). In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 305–314. Turnhout, Brepols.
- Le Mière, M. and Nieuwenhuys, O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad. The Late Neolithic Settlement*, 119–284, Leiden/Istanbul, Nederlands Historisch Archeologisch Instituut.
- Le Mière, M., and Picon, M. (2008) A Contribution to the Discussion on the Origins of the Halaf Culture from Chemical Analyses of Pottery. In J. Cordoba, M. Molist, C. Pérez, I. Rubio and S. Martínez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (ICAANE) 3–8 April 2006* Vol. 3, 729–734, Madrid, Universidad Autónoma de Madrid.
- Mateiciucová, I. (2010) Tell Arbid Abyad – a new Late Neolithic site in the upper Khabur Basin, NE Syria: the first preliminary report. In P. Matthiae, F. Pinnock, L. Nigro and N. Marchetti (eds) *Proceedings of the 6th International Congress on the Archaeology of the Ancient Near East (ICAANE), 5–10 May 2008, 'Sapienza' – Università di Roma*, Vol. 3, 411–422, Wiesbaden, Harrassowitz.
- Matson, F. R. (1945) Technological development of pottery in Northern Syria during the Chalcolithic Age. *Journal of the American Ceramic Society* 28/1, 20–25.
- Matson, F. R. (1983) The Banahilk potter. In L. S. Braidwood, R. J. Braidwood, B. Howe, Ch. A. Reed and P. J. Watson (eds) *Prehistoric Archaeology Along the Zagros Flanks*, 615–628. Chicago, University of Chicago Press.
- Nieuwenhuys, O. P. (2007) *Plain and Painted Pottery. The Rise of Late Neolithic Ceramic Styles on the Syrian and northern Mesopotamian Plains*, Turnhout, Brepols.
- Nieuwenhuys, O. P., Jacobs, L., Van As, B., Broekmans, T. and Adriaens, M. (2001) Making Samarra Fine Ware – technological observations on the ceramics from Tell Baghouz (Syria). *Paléorient* 27/1, 147–165.
- Noll, W. (1976) Mineralogie und Technik der frühen Keramiken Grossmesopotamiens. *Neues Jahrbuch für Mineralogie* 127/3, 261–288.

- Noll, W. (1991) *Alte Keramiken und ihre Pigmente. Studien zu Material und Technologie*, Stuttgart, Schweizerbart.
- Noll, W., Holm, R. and Born, L. (1975) Painting of ancient ceramics. *Angewandte Chemie International Edition in English* 14/9, 602–613.
- Robert, B., Lasalle, A. and Chapoulie, R. (2008) New insights into the ceramic technology of the Proto-Halaf (Transitional) period by using physico-chemical methods. In J. Cordoba, M. Molist, C. Pérez, I. Rubio and S. Martinez (eds) *Proceedings of the 5th International Congress on the Archaeology of the Ancient Near East (ICAANE) (3–8 April 2006)*, Vol. 3, 735–752, Madrid, Universidad Autónoma de Madrid.
- Shepard, A. O. (1956) *Ceramics for the Archaeologist*, Washington, Carnegie Institution (reprint 1985).
- Speakman, R. J. and Neff, H. (2002) Evaluation of painted pottery from the Mesa Verde region using laser Ablation-Inductively Coupled Plasma-Mass Spectrometry (LA-ICP-MS). *American Antiquity* 67, 137–144.
- Steinberg, A. and Kamilli, D. C. (1984) Paint and paste studies of selected Halaf sherds from Mesopotamia. In P. M. Rice (ed.) *Pots and Potters. Current Approaches in Ceramic Archaeology*, 187–208, Institute of Archaeology Monograph 24, Los Angeles, University of California Press.
- Van As, A. and Jacobs, L. (1989) Technological aspects of the prehistoric pottery. In Akkermans P. M. M. G. (ed.) *Excavations at Tell Sabi Abyad. Prehistoric investigations in the Balikh Valley, northern Syria*, British Archaeological Report S468, 215–232, Oxford, British Archaeological Reports.
- Van As, A., Jacobs, L. and Nieuwenhuys, O. P. (1998) The transitional Fine Ware pottery of Tell Sabi Abyad, Syria. A pilot study. *Newsletter of the Department of Pottery Technology* 14/15, 1996/1997, 25–47, Leiden, Leiden University.
- Winter, A. (1959) *Die Technik des griechischen Töpfers in ihren Grundlagen*, Technische Beiträge zur Archäologie I, 1–45, Mainz, Verlag des Römisch-Germanischen Zentralmuseums.

Late Neolithic pottery at Çatalhöyük East

Lech Czerniak and Joanna Pyzel

Abstract

Excavations of the Polish Team at Çatalhöyük East (TP area), conducted between 2001 and 2008, concentrated on the final period of the site occupation (c. 6350–5950 cal BC). They revealed considerable differences in material culture, manifested in a new spatial organization, patterns of architecture and its furnishings, burial practices *etc.* These changes indicate significant social, religious and economic transformations of the local community towards the end of the mound's occupation. This paper presents the pottery from the TP area, divided into two chronological blocks (earlier, until c. 6150 cal BC and later, after this date until c. 5950) in order to trace comparable changes in technology, surface treatment, vessel forms and decoration. However, all of the changes observed in the pottery are relatively minor, gradual and constitute a continuation of a trend originating earlier than the TP sequence. What is striking is the conservatism of the pottery production, expressed in the conscious rejection of the innovation appearing at that time of decorating pottery. In Çatalhöyük East there are no painted vessels nor any with plastic relief applications. Pottery from Çatalhöyük East remained “Neolithic” in nature until the end of the mound's occupation.

Introduction

Çatalhöyük East is located on the Konya Plain in Central Anatolia. This Neolithic tell was inhabited between c. 7400 and 5950 cal BC. Excavations were conducted at the site at the beginning of the 1960s by J. Mellaart. Since that time it has been acknowledged as one of the most important Neolithic sites in the Near East. Since 1993 research has been conducted systematically by an international team led by I.

Hodder.

From 2001 to 2008 a Polish team performed archaeological excavations as part of this international research project. They investigated the area labelled TP – Team Poznań (Fig. 8.1) located at the top of the tell, due east of J. Mellaart's excavations. Their aim was to excavate the youngest layers of the Neolithic tell, known as Çatalhöyük III – 0 (according to J. Mellaart's chronological scheme).

Excavating these layers is of fundamental importance to the interpretation of the final period of the tell's occupation and in particular to the changes which occurred at the end of the Late Neolithic (LN) and the beginning of the Early Chalcolithic (Anatolian terminology: Mellaart 1970, 94; Özbaşaran and Buitenhuis 2002; Schoop 2005, 17; Erdogu 2009, 133). In the final centuries of the seventh millennium cal BC, the tell at Çatalhöyük East was abandoned and in about 6000 cal BC a new tell was established at Çatalhöyük West. This period was the least well researched hitherto. In particular, data regarding the absolute dating indicated a hiatus of at least 200 years between the abandonment of the East Mound and the establishment of the West one (Cessford 2005, 95).

The results of research in the TP area enable us to date the Late Neolithic layers of Çatalhöyük East relatively accurately to a period between c. 6350 and 5950 cal BC (Fig. 8.2), which brings a new perspective to the discussion on the problem of changes taking place in the Late Neolithic in Central Anatolia. The problem of dating the beginnings of Çatalhöyük West is more complex. The recent research has not yet delivered a sufficiently broad spectrum of data for the oldest layers of this tell and in particular unequivocal radiocarbon dating. There would, however, seem to be some justification for the view that the settlement of the two tells at Çatalhöyük was not separated by a hiatus. Most probably, the western tell was settled in the main by inhabitants of the eastern tell.

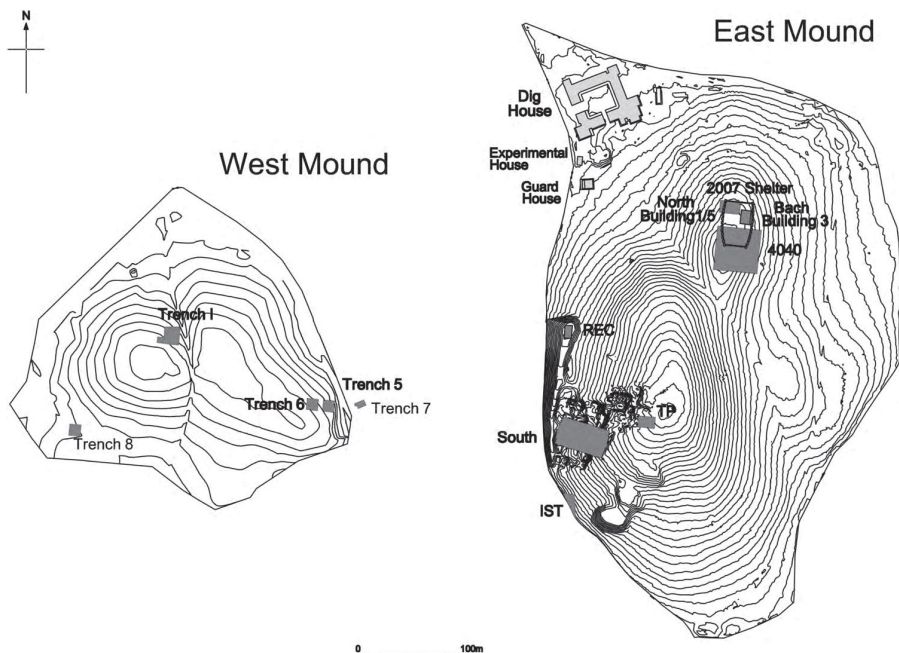


Figure 8.1. Plan of Çatalhöyük. Çatalhöyük Research Project.

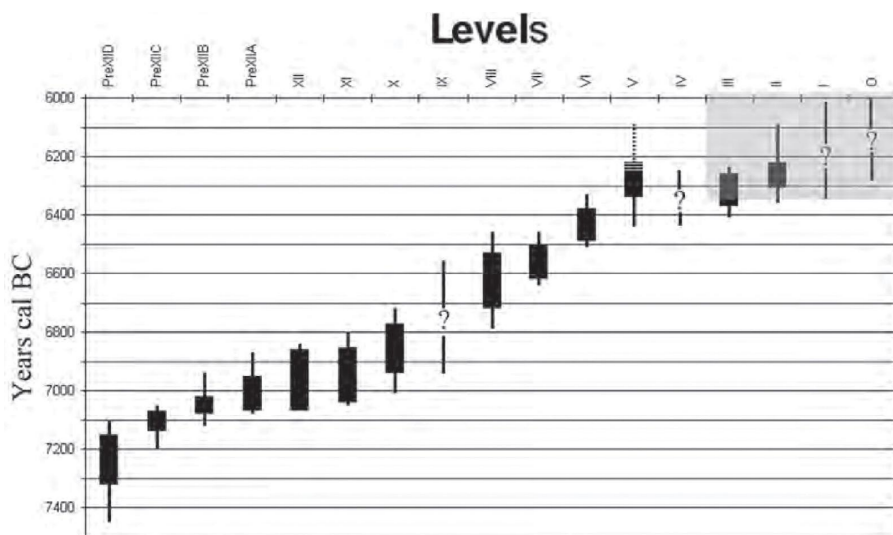


Figure 8.2. Çatalhöyük East, dating of Neolithic levels. After Cessford (2005, fig. 4.3). Grey box added by Authors: dating of TP levels (6360/6250–6025/5915 cal BC (95% probability)).

The aim of this article is to analyse pottery from the layers excavated in the TP area, in particular from a comparative point of view with regard to the changes taking place in the whole region. In the period 6200–5900 cal BC changes were taking place in the whole of the Near East which were most distinctly expressed in ceramics in the form of a gradual appearance of painted pottery. These changes in

Central Anatolia are interpreted as a manifestation of a specialization in the production of ceramic vessels and of wider social changes classified as a transition to the Chalcolithic (Mellaart 1970, 94; see also Çilingiroğlu 2009).

In the layers of the TP area large quantities of pottery were unearthed (almost 14,000 pieces with a total weight of 114 kg). However, it should be emphasized that only a small amount of the pottery comes from unequivocally dated contexts. Thus the types of contexts to which we can relate the analysed assemblages do not reflect the stratigraphic complexity of the site. Two factors were responsible for this. Firstly, the constructions from the youngest phases were badly disturbed by younger settlement. The stratigraphic sequence created as a result of the research seems to be certain and correctly dated. In fact it is very poor in terms of the quantity and spectrum of artefacts, which may be linked with individual contexts. Many artefacts from the youngest layers were found in secondary contexts, frequently considerably younger.

Secondly, and most importantly, in the Late Neolithic phase the principles of building in Çatalhöyük changed significantly. Abandoned houses were not – as they had been for 1000 years of the existence of the tell – left for a long time, gradually becoming buried. In the LN in Çatalhöyük houses were razed after being abandoned, after which their materials were recovered for building other houses. In their place appeared open spaces exploited in other ways, e.g. as the site for middens, hearths and various activities connected with production and everyday life. Subsequently these areas were once more built upon. Then it was sometimes the case that the foundations of the new houses were dug into the older layers. As a consequence, not only was the accumulation of layers weaker than previously, but also the depositional contexts were poor.

In this situation, it seems appropriate to use a generalized image of the stratigraphic layout, which allows us to work with more numerous collections of pottery on the one hand and to analyse changes from a more general chronological perspective on the other. With the damage to many of the latest Neolithic contexts from Hellenistic buildings, it seems appropriate to make use of individual finds of pottery coming also from outside the undisturbed context.

From the point of view of the painted pottery phenomenon that connects the publications from the present volume, of particular importance is the period 6200–5900 cal BC, when in various regions from the Levant and Upper Mesopotamia, through Anatolia to the Balkans, painted pottery began to appear. This phenomenon,

reflecting more complex social, economic and ideological changes presents a very varied picture on the regional and strictly local scale. In this regard Çatalhöyük East is a very interesting example of an important centre of Neolithic settlement with lively contacts with other regions in which, for reasons still to be elucidated, painted pottery began to be used very late and on a limited scale. Painted pottery at Çatalhöyük East did not appear (or at a very limited scale only) before the East tell was abandoned at 5950 cal BC.

Settlement and dating of Çatalhöyük East in the Late Neolithic

The data on absolute dating presented below are based on an analysis of dozens of radiocarbon dates using a Bayesian statistical framework (Marciniak *et al.* 2015).

The sequence of settlement development investigated in the TP area consists of an arrangement of several houses and burial chambers which are separated by periods when the space remained open. The main houses of this sequence (B.81 and B.61, [Fig. 8.3/Colour Pl. 12](#)) and the burial chambers (Sp.327 and Sp.248), although they were separated by a period without any building had a similar construction, dimensions and were located exactly one on top of the other. This testifies to continuity in the building. Neither the houses nor the burial chambers has an analogous counterpart at Çatalhöyük, which may reflect changes that took place in the final centuries of the functioning of this tell as regards the function of the house. We might suggest that a gradual separation from the house of functions connected with the cult and burial of the dead can be observed here (Czerniak and Marciniak 2012).

The oldest building in the sequence under investigation is building B.81 ([Fig. 8.4/Colour Pl. 13](#)) with a surface area of c. 70 m² and a unique floor made of white pebbles mixed with silt. The house has not yet been fully excavated. After the house was abandoned the site was used as a midden area (Space 420). The end of the use of the house and the beginning of the midden area can be dated to 6360–6250 cal BC (end B.81/start Sp.420; 95% probability).



Figure 8.3. (Colour Pl. 12). Çatalhöyük East. North section of the TP trench and dating of main buildings B.81 and B.61 (photo: L. Czerniak).

Part of the space left by house B.81 was used to build house B.74. This moment can be dated to 6345–6240 cal BC (end Sp.420/start B.74; 95% probability). The house was considerably smaller and less carefully built than its predecessor. It was used only briefly (an estimated 1–30 years) and was abandoned in 6340–6235 cal BC (end B.74/start B.72; 95% probability).

Immediately above it was built house B.72 probably in 6340–6235 cal BC (end B.74/start B.72; 95% probability). This house draws on the previous one for its dimensions, form and internal divisions. It was connected to the adjoining open space to the north, perhaps surrounded by a wall, within which there was a construction of some kind with a light roof and a series of hearths. Building B.72 was abandoned in 6225–6155 cal BC (end B.72/start Sp.327; 95% probability).

Immediately after this a burial chamber was constructed (Sp.327), which stands out thanks to its unique wall decoration in the form of a panel made of clay and decorated with an engraved spiral. Inside the chamber, the bodies of eight to nine deceased were buried together with numerous burial gifts. The chamber was probably used for 5–65

years until about 6195–6125 cal BC (end Sp.327/start B.73; 95% probability).

After the burial chamber was closed, a return to the use of the area as an open space with an accumulation of midden (B.73), hearths and other small constructions (Sp.320) took place. After a period of one to 60 years, another change took place and building B.62 was built in 6175–6095 cal BC (end B.73/start B.62; 95% probability).

House B.62 was built exactly in the place of the earlier location of the older house B.81. It was used for a very short time, only for one to 30 years, and immediately afterwards a subsequent house B.61 was built in 6155–6090 cal BC (end B.62/start B.61; 95% probability).

House B.61 was located immediately above B.62. In the latest phase of its use, a floor made of white pebbles set into a solid calcareous matrix was put in, very similar to that in the oldest building of this sequence B.81 ([Fig. 8.3](#)). In this house, as in B.62, after it was abandoned (after a period of use of about 20–105 years) no walls were left standing. In place of house B.61 a burial chamber was built (burial chamber Sp.248) in 6095–6020 cal BC (end B.61/start Sp.248; 95% probability).

The burial chamber (Sp.248), built after house B.61 was abandoned, was located exactly above the earlier burial chamber (Sp.327). In it were placed 6–11 adults and three infants. Apart from that, in the northern part of the chamber an installation was constructed with cattle bucranium and a female skeleton. The tomb was used for about 55–170 years and was closed in 5985–5895 cal BC (end Sp.248; 95% probability).

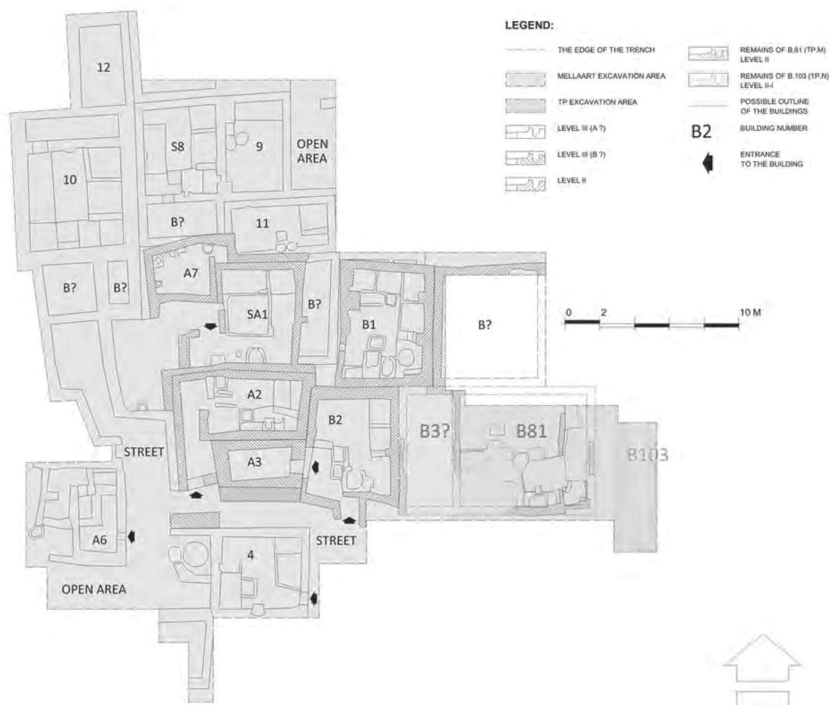


Figure 8.4. (Colour Pl. 13). Çatalhöyük East. TP area: Building B.81 and its context. Çatalhöyük Research Project (drawing: M. Barański).

The youngest Neolithic construction on the East Mound at Çatalhöyük is house B.33, built on the midden area (Sp.414). Two small fire installations were located in its central part, in addition to a hearth associated with a feasting deposit and the underlying infant burial. Such a combination of deposits is unknown in earlier phases of the functioning of the tell. House B.33 was used contemporaneously with the burial chamber described above (Sp.248). It was built in 6080–5990 cal BC (end Sp.414/start B.33; 95% probability) and abandoned in 6025–5915 cal BC (95% probability). Neolithic activity on the tell (TP area) ultimately ended at 5980–5880 cal BC (95% probability).

Late Neolithic pottery at Çatalhöyük East

The Late Neolithic pottery from the TP area was divided into two chronological blocks for the purposes of this contribution. The first of them, the oldest, comprises newly distinguished layers TP M, N and O, connected with houses B.81, B.74 and B.72. About 50% of all of the material recovered is connected with these levels. The second block comprises layers TP Q and R, connected with the youngest houses B.62, B.61 and B.33. About 30% of all the pottery was recovered from

these layers, in other words a little less than from block TP M, N, O (Fig. 8.5) This division should make it possible to compare material that is older and younger than 6200–6150 cal BC and thus to follow any chronological changes in the ceramics. In this part of the paper, only selected features which are statistically significant will be presented: technology, surface treatment, vessel forms and profiles.

Ware groups

Generally the pottery from the TP area is very fragmented – the average weight of one piece is 8 g – and 78% of the assemblage comprises undecorated body sherds. Hence the statistically most important feature of this material is its technology. In order to describe material from the TP area, ware groups defined for the whole of the East Mound (Yalman 2009) were used. In total, there were 63 of them, but on the basis of the analysis of clay sources (preliminary reports: Doherty 2007; 2009), it is possible to reduce this number to four basic ones.

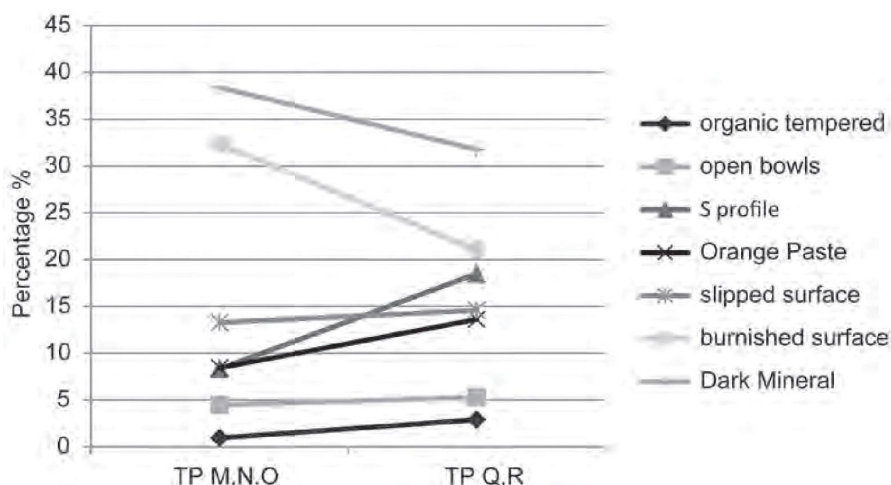


Figure 8.5. Çatalhöyük East. Percentage of selected pottery features from the lower (TP M, N, O) and upper (TP Q, R) layers of the TP area.

Dark Mineral Ware (DM) refers to pottery made of non-local raw material of volcanic origin, dark in colour with a natural mineral admixture, dense, and well-fired. Interestingly, this category bears strong affiliations with the northern Levantine Dark-Faced Burnished Ware. Mostly egg-shaped, hole-mouth cooking pots (e.g. Fig. 8.6, 5) were made of this raw material.

Cream Mineral Ware (CM) consists of pottery made of local raw material (silt), relatively loose and light, with a light cream and grey

colour. Mainly different small jars and bowls for serving (e.g. Figs 8.6, 6–10; 8.7, 3, 4, 6–7; 8.10, 1–4, 7) were made from this material.

These two groups constitute the most important categories of the classical East Mound Pottery. In time, however, additional groups appeared.

Orange Paste (OP) comprises orange-coloured pottery of the same non-local provenance as DM. This category includes both dense and loose pottery.

Further, what is known as Organic refers to pottery with an organic admixture. According to J. Last's observations (Last 2005), its proportion increases in the youngest layers of Çatalhöyük East, which is why it is treated separately here in order to verify this hypothesis.

Finally, we distinguish a category of "Other", which includes all other, minor groups which do not fit in any of the categories described above.

In all of the layers of the TP area, the primary category (almost 50%) comprises Cream Mineral pottery. The proportion of it does not change significantly with the passage of time. The proportion of the second-largest group – Dark Mineral – decreases, however, while that of Orange Paste and Organic increases (Fig. 8.5). The latter category never constitutes a very large group, but the difference between the older and younger layers is nevertheless significant.

These observations would be confirmation of the earlier conclusions of J. Last (2005) and N. Yalman (2010b), whose opinion is that at the end of the inhabitation of Çatalhöyük East began a period of experimentation and a search for new methods of pottery manufacture, particularly the search for raw materials. The scale of this phenomenon nevertheless remained quite small.

Surface treatment

The majority of vessels from Çatalhöyük East were not decorated in the traditional sense of this word: on the majority of the sherds there are no ornaments, be they painted or engraved (see below). Vessels had a uniform, smooth surface, finished or decorated with a slip or burnishing (see Le Mièrre *et al.* this vol.). In the chronological sequence, the proportion of burnished pottery decreases with time, while the percentage of slipped pottery increases, albeit to a lesser extent (Fig. 8.5).

Slipped pottery constitutes on average ten to twenty percent of the material. The slip was always brown-red-orange in colour. The differences in the shades could be a result of the effect of the original colour of the surface of the vessel and post-depositional processes. It

seems that the makers of pottery from Çatalhöyük East used one kind of paint as a slip. The slip occurs in all ware groups, though most frequently on light-coloured pottery (Cream Mineral and Orange Paste Ware Groups).

Vessel forms

In total only 26 vessels are preserved to an extent that permits the reconstruction of the whole profile (and the shape of the vessel) to be recorded (see Figs 8.6, 2, 7–10; 8.7, 3, 7). As many as nine of them are miniature forms. Hence the classification of vessel forms is based on very incomplete data. This is made more difficult by the great similarity of many forms. Generally, for example, the angle of the slope of the rim of the vessel is relatively uniform – the majority of the rims come within a range of 75–100° – so the walls are comparatively vertical. With the passage of time, only the number of open bowls (an angle of about 110° and more, see Fig. 8.8, 12, 13) increases, albeit slightly (Fig. 8.5).

The shape of the upper part of the profile also changes gradually. In time rounded parts (bent towards the middle, e.g. Fig. 8.8, 6) are replaced by S-profiles (bent outwards, e.g. Figs 8.5; 8.8, 15; 8.10, 2, 3, 6, 7). Even in the younger layers (Figs 8.9 and 8.10), though, their proportion is not dominant – most of the vessels still have straight walls.

The collation of all of the features analysed here (Fig. 8.5) presents a picture of the chronological trends which are observed. Thus the differences between the older and younger layers from the TP area pertain to technology, surface treatment, vessel forms and vessel profiles. It should, however, be emphasized that these are rather small changes, often affecting statistically insignificant categories (Orange Paste Ware and, especially, Organic Ware, slip, open bowls and S-profile).

Nurcan Yalman has divided the development of Neolithic pottery from Çatalhöyük East into three stages (Yalman 2010a). The TP area comes in the last of these, Stage 3, whose beginning is earlier, about 6500 cal BC. Then, apart from cooking pots (Dark Mineral Wares) there appear vessels for serving and dining (Light Ware: Cream and Orange Paste). These two categories are also observed in the TP area. We should emphasize that no storage vessels were observed in the TP assemblage despite the changes in architecture that led to the absence of storage bins. All chronological trends observed within the sequence in the TP area (Fig. 8.5) were already visible earlier: changes in technology (especially the appearance of new ware groups), the

increase in the importance of open vessel forms (serving and dining) and even the appearance of S-profiles. These changes are never sudden, but rather the consequence of slow, gradual, natural development. The pottery in the TP area, even in the youngest layers, remains Neolithic in character.

Çatalhöyük East in context

Research in recent years points to considerable differentiation in the development of different regions in the Near East during the Late Neolithic, including Anatolia (see, for example, Özdoğan *et al.* 2012; Düring 2013). Particularly significant variations are recorded in the period of interest to us, the Late Neolithic and the transition to the Early Chalcolithic. They are reflected in the phenomenon of painted pottery, which was the subject of the meeting in Rejvíz. In Upper Mesopotamia painted ceramics appear the earliest at sites of the Pre-Halaf and Proto-Halaf stages at the end of seventh millennium cal BC (Cruells and Nieuwenhuys 2004; see also Faura and Molist this vol.; Cruells this vol.; Nieuwenhuys this vol.). Painted ceramics relatively quickly spread not only to considerable areas of the Near East, but also to south-east Europe. It does not occur everywhere, however, even within the range of the Halaf Culture itself (see Rouj Basin, Odaka this vol.). In Anatolia, we can observe whole regions that the phenomenon of painting pottery did not reach – especially in the west, but also for example in Cappadocia.

The Konya Plain with Çatalhöyük West is, however, a typical example of a region with painted pottery. This is why, particularly taking into account late dating of the youngest sequences of the TP area, we might expect, analogously to the nearby Canhasan (French 2005), early painted pottery at Çatalhöyük East. However, with the exception of one (!) fragment, where instead of a slip there is a vertical red line starting at the rim, there are no other such fragments in the material from the TP area. This fragment is probably connected to the level of house B.73, dated to c. 6100 cal BC, which is relatively early. Generally, however, there seem to be more similarities linking the Late Neolithic Pottery from Çatalhöyük East with regions with unpainted pottery.

Some significant regional differences nevertheless draw our attention here, too. In the material from the TP area there are no recorded vertical tubular lugs. Such lugs were found in Çatalhöyük by J. Mellaart (1967, 217), so they were not completely unknown at this site. However, taking into account data from the TP area we should state that they could not have been as widespread as for example in

the Lake District (Duru 1999, 184) or Central-West Anatolia (e.g. Ulucak: Çilingiroğlu 2009; Çilingiroğlu *et al.* 2012).

A small part of the pottery from the TP area (0.2%) is incised (Fig. 8.9, 6, 11). This mainly consists of horizontal lines under the rim, a style already found in earlier levels on East Mound. The proportion of it does not change in the sequence of the TP area. Some fragments can be classified as the Gelveri-Güzelyurt type (Fig. 8.9, 12), dated to 6000– 5800 cal BC (Schoop 2005, 228). They occurred in middens of the youngest layers of Çatalhöyük East (see also Schoop 2005, 134). What is surprising is the similarity of the spiral motifs on vessels and on the relief from tomb Sp.327. This pottery seems to indicate links between the Konya Plain and Cappadocia; however, significant differences between these regions should be emphasized here: in the material from the TP area there is definitely a lack of decoration in the form of plastic applications, which is dated to the period after 6200 cal BC and characteristic for pottery from Cappadocia (Kösk Höyük: Öztan 2012; and Tepecik-Çiftlik: Biçakçi *et al.* 2012; see also Central-West Anatolia: Ulucak: Çilingiroğlu *et al.* 2012, 172, fig. 30; and Ebe Gubre: Sağlamtimur 2012, 217, fig. 17).

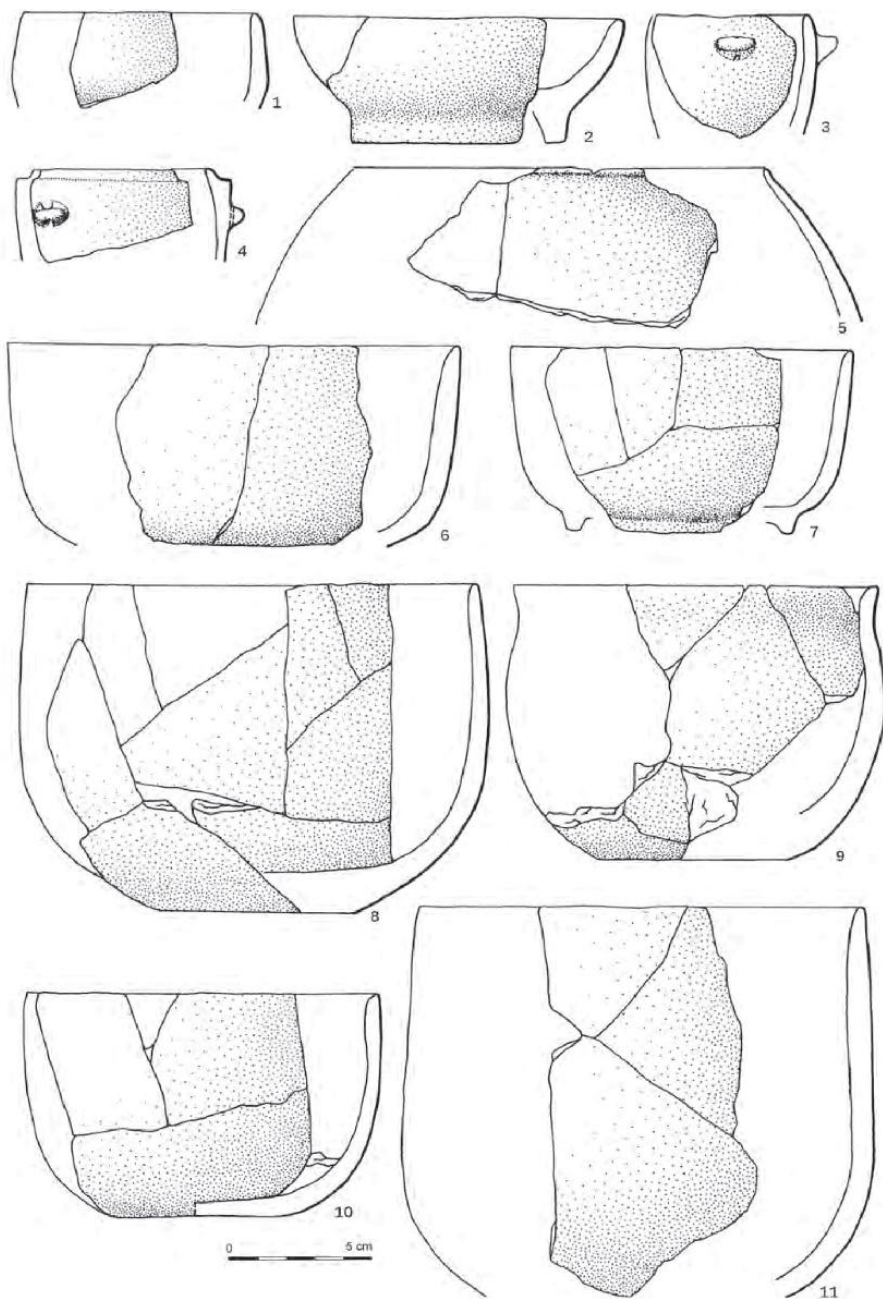


Figure 8.6. Çatalhöyük East. TP area. Pottery from Space 420, above Bd.81 (layer TP M) (drawing: J. Pyzel).

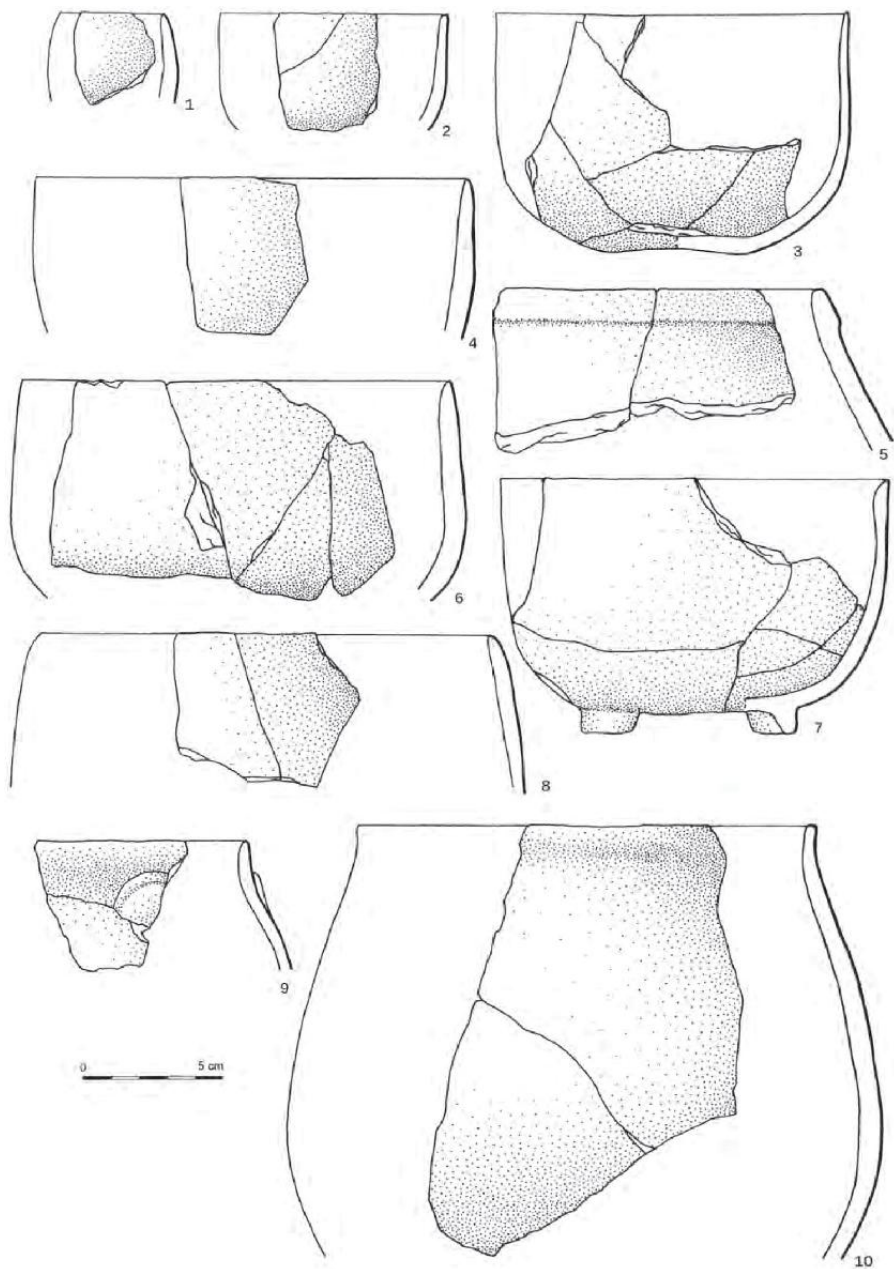


Figure 8.7. Çatalhöyük East. TP area. Pottery from layer TP N, connected with Bd.74 (drawing J. Pyzel).

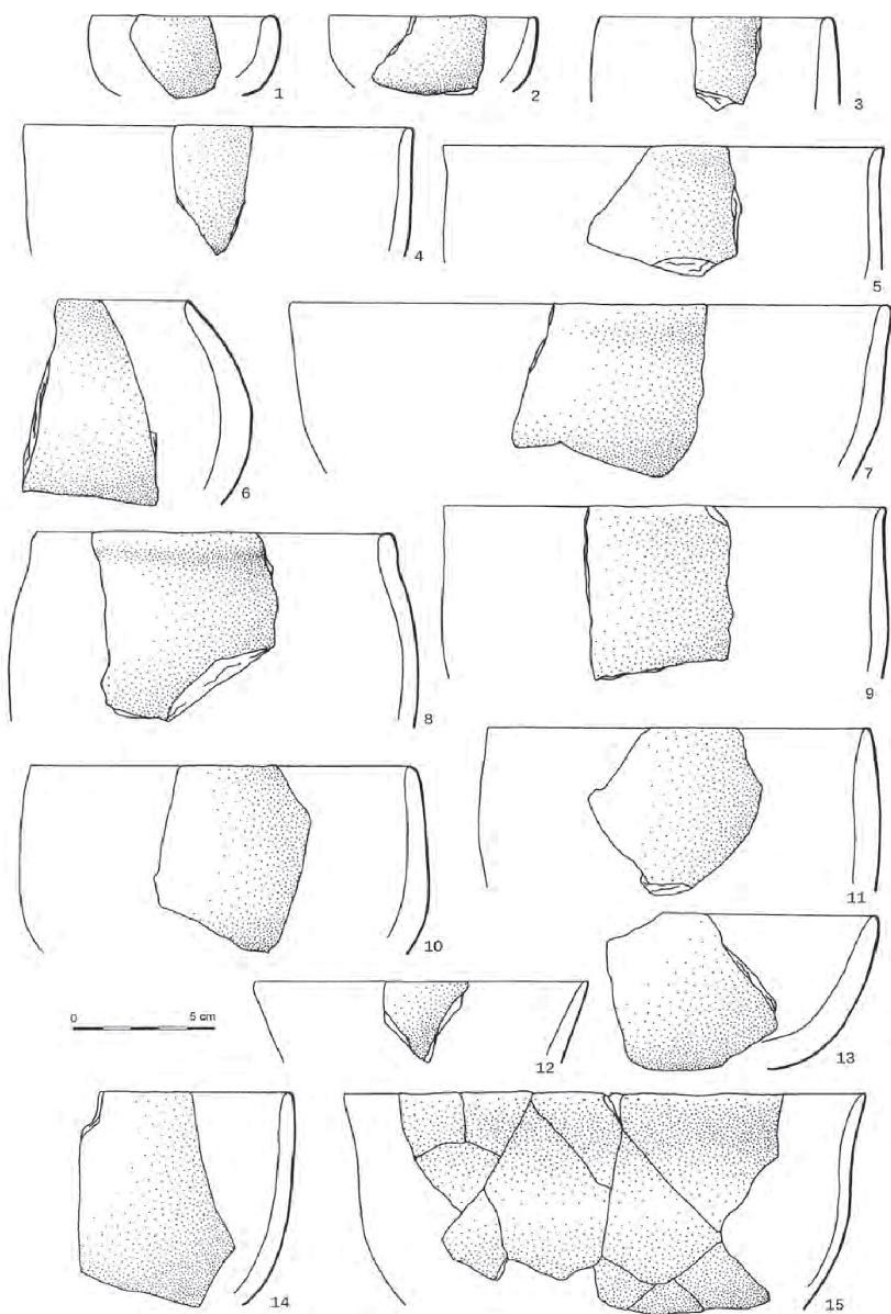


Figure 8.8. Çatalhöyük East. TP area. Pottery from layer TP O, connected with Bd.72 (drawing J. Pyzel).

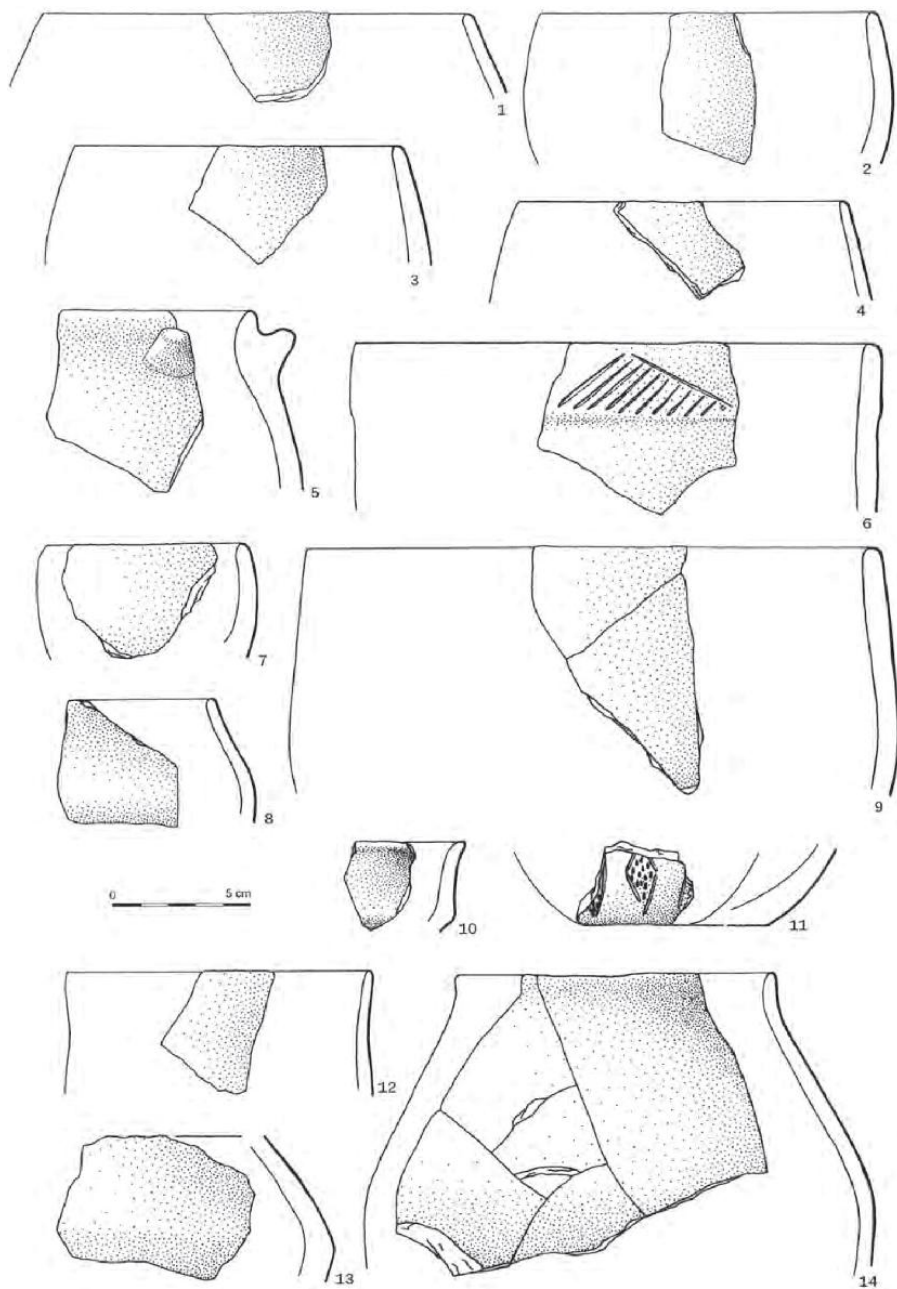


Figure 8.9. Çatalhöyük East. TP area. Pottery from layer TP Q, connected with Bd.62 (drawing J. Pyzel).

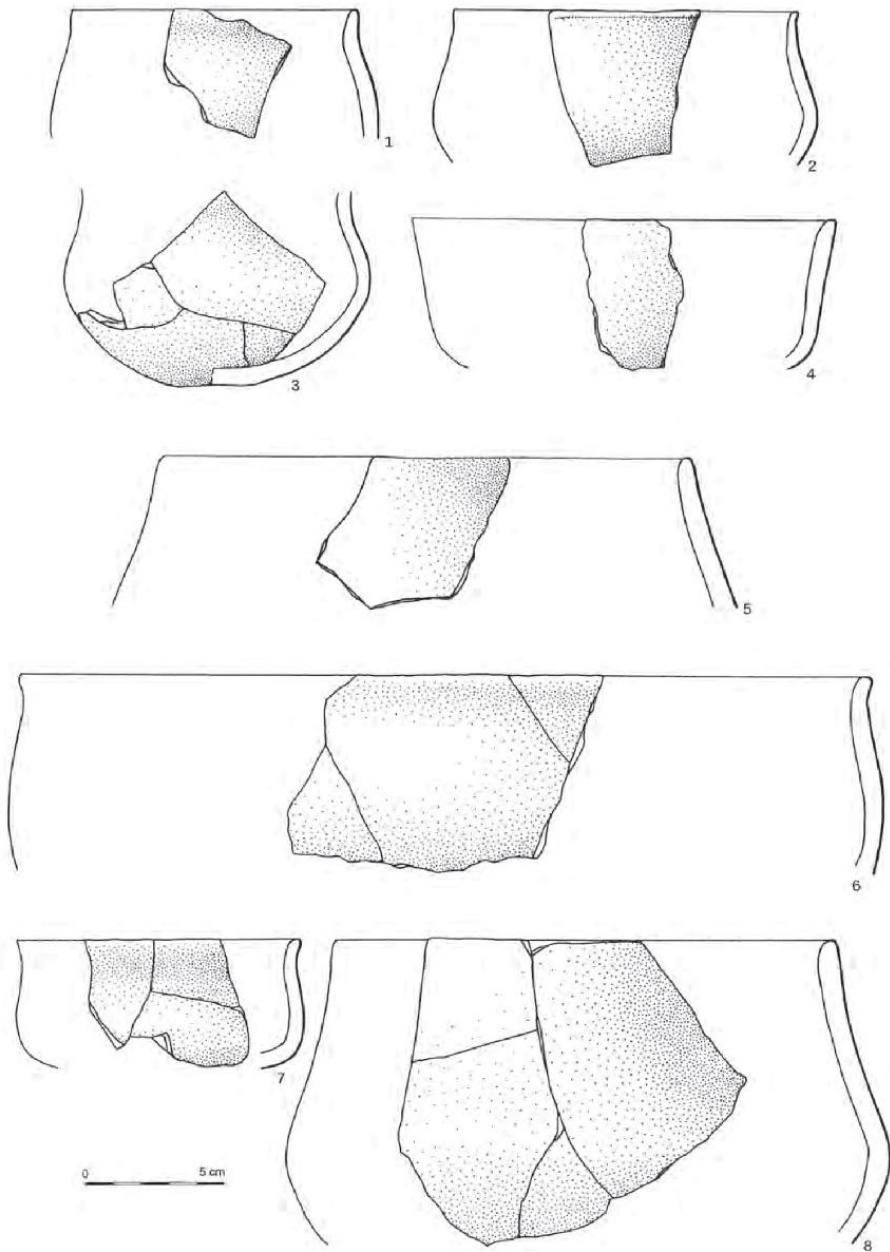


Figure 8.10. Çatalhöyük East. TP area. Pottery from layer TP R, connected with Bd.61, 34 and 33 (drawing J. Pyzel).

Conclusions

The rejection of decorating pottery by the inhabitants of the youngest levels of Çatalhöyük East is striking and would seem to be a conscious decision. It clearly did not result from the isolation of the inhabitants of this site: the Late Neolithic pottery, with the exception of the

absence of decoration, reflects diverse extra-regional trends visible in the pottery of Anatolia and the Near East. First, there is the phenomenon of Dark-Faced Burnished Ware (Balossi Restelli 2006), which may bear relationships with the DM and OP of Çatalhöyük and slipped pottery (Çilingiroğlu 2009, 480) which may be compared with the red-slipped pottery from Çatalhöyük. Moreover, despite the absence of painting, vessels connected with serving and dining do appear at Çatalhöyük East, which testifies to similar social transformations (e.g. Balossi Restelli 2012). It therefore seems that the conservatism of the inhabitants of the East Mound manifested in their refusal to decorate their vessels (see also Duru 1999, 189) was an expression of group identity (see Robert this vol.). Perhaps it was only when they decided to abandon their ancestors' settlement (Çatalhöyük East) and establish a new one (Çatalhöyük West) that it was possible to adapt, probably quickly, to a new style of decorating pottery.

In this context the matter of the process of abandoning an old tell and establishing a new one takes on many new meanings. In communities which attached enormous value to the rituals of abandoning houses, leaving a tell which had been the main settlement of the region for almost 1400 years in such an irrevocable way must have been a decision of huge importance. The gradual abandoning of the East Mound began about 6500–6400 cal BC, and is archaeologically visible indirectly through the appearance of new smaller tells on the Konya Plain (Baird 2005) and also by the fact that the buildings on the old tell became increasingly sparse. Instead of buildings the village plan increasingly included open spaces and streets (Marciniak and Czerniak 2007). In the final phase (the last centuries of the seventh millennium), which we are analysing here, the eastern tell probably was inhabited by a much smaller population than before. This community, however, would have had a very strong feeling of the heritage of many generations, of which they were the heirs. The tell could then begin to play a new additional role as an enormous cemetery and the centre of a cult. It is possible that this was accompanied by the conscious conservatism in the approach to ideas of radical changes in the form and painting of ceramic vessels.

A sign of the new situation of the inhabitants of the East Mound may be social and religious changes (visible particularly in the TP area) expressed as a transition to different forms of practising religiosity (to a more doctrinal mode; see Whitehouse and Hodder 2010). In connection with this, the transition to a much more frequent but also more routine manner of conducting rituals could be manifested in a separation of structures with specialized functions

connected with the practising of the cult, which is visible in the TP area (e.g. Sp.346) and those connected with burying the dead (tombs Sp.327 and 248). As a consequence a gradual restriction on the functions of a house came about, with the house becoming exclusively the place for daily life (Czerniak and Marciniak 2012).

Seen from such a perspective, the seemingly sudden transition to the broad use of painted pottery as observed on the West Mound is a particularly interesting phenomenon. Nevertheless in order to capture that particular moment and the context of the cultural change it requires new data concerning the precise dating of the oldest layers of Çatalhöyük West.

Bibliography

- Baird, D. (2005) The history of settlement and social landscapes in the Early Holocene in the Çatalhöyük area. In I. Hodder (ed.) *Çatalhöyük Perspectives: themes from the 1995–1999 seasons*, 55–74, Cambridge, McDonald Institute for Archaeological Research/British Institute of Archaeology at Ankara.
- Balossi Restelli, F. (2006) *The Development of “cultural Regions” in the Neolithic of the Near East. The “Dark Faced Burnished Ware Horizon”*, British Archaeological Report S1482, Oxford, Archaeopress.
- Balossi Restelli, F. (2012) Eating at home and “dining” out? Commensalities in the Neolithic and Late Chalcolithic in the Near East. In S. Pollock (ed.) *Between Feasts and Daily Meals: Toward an Archaeology of Commensal Spaces*. eTOPOI Journal for Ancient Studies, Special Volume 2, 75–95. <http://journal.topoi.org/index.php/etopoi/article/view/22> (accessed 29.10.2015)
- Biçakçı, E., Godon, M. and Çakan, Y. G. (2012) Tepecik-Çiftlik. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey. New Excavations & New Research. Central Turkey*, 89–134, Istanbul, Archaeology and Art Publications.
- Cessford, C. (2005) Absolute dating at Çatalhöyük. In I. Hodder (ed.) *Changing Materialities at Çatalhöyük: Reports from the 1995–1999 Seasons*, 65–99, Cambridge, McDonald Institute for Archaeological Research/British Institute of Archaeology at Ankara.
- Çilingiroğlu, Ç. (2009) *Central-West Anatolia at the end of 7th and beginning of 6th millennium BCE in the light of pottery from Ulucan (Izmir)*, Unpublished PhD thesis, Universität Tübingen.
- Çilingiroğlu, A., Çevik, Ö. and Çilingiroğlu, Ç. (2012) Ulucak Höyük. Towards understanding the early farming communities of middle west Anatolia: the contribution of Ulucak. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey. New Excavations and New Research. Western Turkey*, 139–175, Istanbul, Archaeology and Art Publications.
- Cruells, W. and Nieuwenhuysse, O. P. (2004) The Proto-Halaf period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Czerniak, L. and Marciniak, A. (2012) From ‘history houses’ to cult structures. The emergence of rituals out of domestic space at Çatalhöyük East towards the end of the 7th millennium BC. In P. Bieliński, M. Gawlikowski, R. Koliński, D. Ławecka, A. Sołtysiak and Z. Wygnańska (eds) *Proceedings of the 8th ICAANE, 30 April–4 May 2012, University of Warsaw, Wiesbaden, Harrassowitz*.
- Doherty, C. (2007) Clay sourcing, Çatalhöyük 2007 – matching the minerals and the landscape. In *Çatalhöyük Archive Report 2007*, 368–381. Available online from www.catalhoyuk.com (accessed 30.11.2012).
- Doherty, C. (2009) Clay materials. In *Çatalhöyük Archive Report 2009*. Available online from www.catalhoyuk.com (accessed 30.11.2012).
- Duru, R. (1999) The Neolithic of the Lake District. In M. Özdoğan and N. Başgelen (eds) *Neolithic in Turkey. The Cradle of Civilization. New Discoveries*, 165–191, Istanbul, Arkeoloji

- Düring, B. (2013) Apples and oranges? Comparing Neolithic horizons of Upper Mesopotamia and Asia Minor. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, PALMA 9, 367–376, Turnhout, Brepols.
- Erdogu, B. (2009) Ritual symbolism in the early chalcolithic period of Central Anatolia, *Journal for Interdisciplinary Research on Religion and Science* 5, 129–151.
- French, D. (2005) *Canhasan Sites 2. Canhasan I: the pottery*, Ankara, British Institute at Ankara.
- Last, J. (2005) Pottery from the East Mound. In I. Hodder (ed.) *Changing Materialities at Çatalhöyük. Reports from the 1995–99 seasons*, 101–138, Cambridge, McDonald Institute for Archaeological Research/British Institute of Archaeology at Ankara.
- Marciniak, A. and Czerniak, L. (2007) Social transformations in the Late Neolithic and the Early Chalcolithic periods in central Anatolia. *Anatolian Studies* 57, 115–130.
- Marciniak, A., Barański, M.Z., Bayliss, A., Czerniak, L., Goslar, T., Southon, J. and Taylor, R.E. (2015) 'Fragmenting times: interpreting a Bayesian chronology for the Late Neolithic occupation of Çatalhöyük East, Turkey', *Antiquity*, 89(343), pp. 154–176.
- Mellaart, J. (1967) *Çatal Hüyük. A Neolithic Town in Anatolia*, London, Thames and Hudson.
- Mellaart, J. (1970) *Excavations at Hacilar*, Edinburgh, Edinburgh University Press.
- Özbaşaran, M. and Buitenhuis, H. (2002) Proposal for a regional terminology for Central Anatolia. In F. Gérard and L. Thissen (eds) *The Neolithic of Central Anatolia, Internal Developments and External Relations during the 9th–6th millennia cal BC*, 67–78, Istanbul, Archaeology and Art Publications.
- Özdoğan, M., Başgelen, N. and Kuniholm, P. (eds) (2012) *The Neolithic in Turkey. New Excavations and New Research*, Istanbul, Archaeology and Art Publications.
- Öztan, A. (2012) Köşk Höyük. A Neolithic settlement in NiğdeBor Plateau. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey. New Excavations and New Research. Central Turkey*, 31–70, Istanbul, Archaeology and Art Publications.
- Sağlamtimur, H. (2012) The Neolithic settlement of Ebe Gübre. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey. New Excavations and New Research. Western Turkey*, 197–225, Istanbul, Archaeology and Art Publications.
- Schoop, U.-D. (2005) *Das anatolische Chalkolithikum. Eine chronologische Untersuchung zur vorbronzezeitlichen Kultursequenz im nördlichen Zentralanatolien und den angrenzenden Gebieten*, Remshalden, Greiner.
- Whitehouse, H. and Hodder, I. (2010) Modes of religiosity at Çatalhöyük. In I. Hodder (ed.) *Religion in the Emergence of Civilization: Çatalhöyük as a case study*, 127–145, Cambridge, Cambridge University Press.
- Yalman, N. (2009) Pottery archive report. In *Çatalhöyük Archive Report 2009*. Available online from www.catalhoyuk.com (accessed 30.11.2012).
- Yalman, N. (2010a) The pottery of Çatalhöyük East. Recent developments. In P. Matthiae, F. Pinnock and L. Nigro (eds) *Proceedings of the 6th International Congress of the Archaeology of the Ancient Near East 5 May–10 May 2009, Sapienza, Università di Roma*, Vol. 1, 1023–1026, Wiesbaden, Harrassowitz.
- Yalman, N. (2010b) Ceramics archive report. Study season. In *Çatalhöyük Archive Report 2010*. Available online from www.catalhoyuk.com (accessed 30.11.2012).

Late Neolithic pottery traditions on the Upper Tigris valley

Halil Tekin

Abstract

The Upper Tigris valley is a hilly part of Upper Mesopotamia. Our limited knowledge of the Late Neolithic painted pottery tradition of the Upper Tigris valley and its environments has begun to flourish over the last few decades. Recent surveys and excavations carried out on the Turkish Upper Tigris are yielding exciting new data concerning the Late Neolithic cultures of the region. The gap of information regarding the Late Neolithic in the region has been filled by the Ilisu Dam excavations carried out at Hakemi Use (Hassuna/Samarra Period) and Karavelyan (Early Halaf Period) and our survey on this area. The most important results of these recent works show that the Hassuna/Samarra and Halaf cultures of the Upper Mesopotamia existed in the region bordered by the Taurus Range since the seventh–sixth millennium BC. The findings obtained from survey and excavations remaining indicate that the Upper Tigris valley was not an empty place during the Late Neolithic. The Upper Tigris valley seems to have been a major part of Hassuna/Samarra and Halaf cultures since its beginnings.

Introduction

The Upper Tigris valley in south-eastern Turkey constitutes the “highlands” of Upper Mesopotamia. The area remained geographically virtually unknown in the world of archaeology until 10 years ago. Today the Turkish republic is in the process of building a large water reservoir on the Tigris River, named the Ilisu Dam. Planned to be completed in the near future, the dam will create a reservoir of

approximately 313 km². An international project initiated in 1998 aims to save the cultural assets soon to be flooded by this reservoir. Our team has taken part in this project since 2001, excavating at Hakemi Use and Karavelyan. Furthermore, we conducted a survey on the

Pottery Neolithic within an area of approximately 100 km, parallel to the Tigris River, between the cities of Diyarbakır and Batman (Fig. 9.1). The excavations and survey yielded valuable insights on the Pottery Neolithic cultures of the Upper Tigris Valley. I shall first discuss patterns of Late Neolithic settlement, providing a framework for a discussion of the Late Neolithic pottery traditions as documented at the two excavated sites.

Late Neolithic settlement on the Upper Tigris

The survey of Pottery Neolithic settlement on the Upper Tigris was carried out between 2007 and 2009, a comprehensive publication concerning the survey on the Pottery Neolithic Settlements in the Upper Tigris Region is in progress. Our survey concentrated on the immediate banks and on the lower terraces next to the river bank and at its southern streams, the Göksu, Şeyhan Çay, and Savur Çay, as well as at its northern tributary, the Salat Çay. In this narrow stretch of land we located four Hassuna/Samarra and nine Halafian settlements. It should be noted that all of the Halafian settlements date to the early stage, in other words, to the first quarter of the sixth millennium BC. In the survey region only Early Halaf pottery has been observed on small sites under 1 ha in extends and having low archaeological deposits. These sites are spaced only a few kilometres apart from one another, which may point to the existence of seminomadic communities leading a mobile life.

The three Halafian settlements that constituted the starting point for our survey are situated on the modern highway that links the cities of Diyarbakır-Mardin and Batman, 20 km south of Diyarbakır city centre (Fig. 9.2).

Two of these, Kaynar and Harem, cover an area less than a single hectare. Harem is widely damaged due to recent agricultural activities. Located only 5 km east of these three settlements, Hucetti is the largest Halafian settlement that we have identified in the survey so far. Since cotton was planted on top of this settlement, its borders could not be clearly identified; however pottery sherds were found covering an area of at least 4 ha. During our study we recovered an intact Halafian pot from an irrigation ditch (Fig. 9.3). All three Halafian sites are located a few hundred metres inland from the Tigris

River, and are situated on low natural terraces.



Figure 9.1. Map of the Upper Tigris valley showing the locations of prehistoric sites detected in the survey.

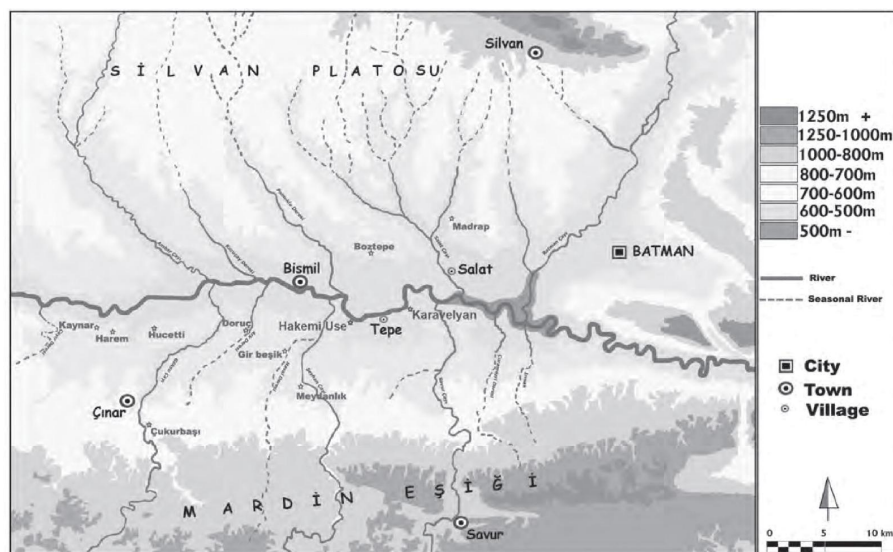


Figure 9.2. Map of the surveyed area showing the locations of prehistoric sites.

Moving east, another site was documented approximately 1 km inland from the Tigris, named Doruç. Situated along a small tributary of the Tigris, Doruç is interesting for the numerous painted sherds recovered from its surface. Hassuna and Samara painted sherds were found at Doruç as well as Early Halafian pieces (Fig. 9.4/Colour Pl. 14).

The site of Çukurbası lies on the Göksu, close to the Mountains of Mardin. This prehistoric site lies underneath a modern village. The pottery collected from this site is very similar to the ceramics

recovered from the excavations at Hakemi Use. Especially interesting are the Dark Faced Burnished Ware sherds collected from the surface of this site.



Figure 9.3. Early Halafian painted pot from Hucetti.



Figure 9.4. (Colour Pl. 14). Early Halafian painted sherds from Doruç.

Situated on the Şeyhan Çay, Gir Beşik is a Halafian settlement destroyed by modern villagers. Covering an area of approximately 2 ha at the foot of the small mound, this site reached a height of 10 m and is worthwhile for its third and second millennium BC pottery and Late Assyrian materials.

Meydanlık is a Hassuna-period settlement located 2 km south of Gir Beşik, also buried under a modern village today. A small creek called the Ark runs through the centre of the modern village. Neolithic ovens can clearly be observed underneath the foundations of the modern houses.

Madrap Düzü is the only Neolithic settlement identified so far on the Salat Çay, a northern tributary of the Tigris. This site lies about 5 km north of the site of Salat Camii Yanı which represents the oldest Pottery Neolithic settlement known in the wider region, and is currently being excavated by a Japanese team. No painted sherds were recovered from the surface of the site, which is 1.5 ha wide and 2 m high. However, several Standard Ware sherds well known from the excavations at Hakemi Use were found.

This survey provides a valuable spatial-geographic background to the excavations at two prehistoric settlements that illustrate the role of the Upper Tigris valley during the Late Neolithic. The work at Hakemi Use and Karavelyan yields detailed information on the

communities inhabiting the Upper Tigris valley during the late seventh to early sixth millennium BC.

The excavations at Hakemi Use

The site of Hakemi Use in fact comprises two separate settlements, placed about 200 m apart on the right side of the Tigris River. The settlement that we have named Hakemi Use II lies to the east of the main mound named Hakemi Use I (henceforward simply Hakemi Use). The excavations conducted in 2011 at Hakemi Use II brought out a small medieval village inhabited during the fourteenth century AD. The inhabitants of this village used the Late Neolithic settlement as a cemetery.

The Late Neolithic site is c. 1.2 ha in extent. During the excavations in 2001–2012, an area of 1750 m² have been exposed. The archaeological deposits of about 4 m in depth is composed by a thick Late Neolithic deposit (c. 3.5 m) overlaid by a thin deposit (c. 0.5 m) of the Neo-Assyrian settlement.

The Late Neolithic ceramic assemblage of Hakemi Use is composed by four main groups preliminarily named *Standard Ware*, *Dark Faced Burnished Ware*, *Orange Fine Ware* and *Fine Ware* (Tekin 2011a, 153). We emphasize that there is a serious terminological problem among various specialists of Upper Mesopotamian Late Neolithic. Recently several scholars have suggested new terms in addition to the traditional terminology of Hassuna, Samarra and Halaf ceramic traditions (Campbell 1992; Le Mièrre and Nieuwenhuyse 1996; Nieuwenhuyse 2007; Bernbeck and Nieuwenhuyse 2013). In order to avoid adding to the confusion, by introducing yet another series of brand new names for the pottery of Hakemi Use, we have decided to use the generally accepted terminology for now. In the final excavation report we shall discuss the issue of terminology in detail.

The most common ceramic category in all five stratigraphic layers of Hakemi Use is *the so-called Standard Ware* (Tekin 2013, 496, table 44.1). Vessels in this category were occasionally painted. Linear painted sherds are now and then encountered within this group. Vessels painted with bitumen constitute approximately 3% of all Standard ware, a rate that is similar in all five stratigraphic layers. Bitumen paint is mostly observed on the mouths of the vessels as a band on the interior and exterior rim. Very occasionally the bitumen paint was used for decorating the exterior or the interior surfaces. An archaeometric project by Jacques Connan from the University of Strasbourg aims to determine the provenance of the bitumen observed on the Hakemi Use pottery. Although conclusive results are not yet

available, the source is thought to be the Erüh (or *Mount Cudi*) *bitumen field* to the east of Mardin, c. 200 km to the east of Hakemi Use.

The second most common group of pottery is the *Dark Faced Burnished Ware*, which was without any painted decoration (Tekin 2007).

What we termed *Archaic Hassuna Painted Ware* is present in all five building levels of Hakemi Use, in similar ratios (Tekin 2013, 496, table 44.1). This pottery group occupies an important place in discussions of Late Neolithic ceramic traditions of Upper Mesopotamia, after its first discovery at Tell Hassuna (Lloyd and Safar 1945). It is generally known, however, that in the original report on the excavations at Tell Hassuna the ceramic definitions were not presented in sufficient detail, which contributes to the problems we are currently facing in comparing this pottery with that of new excavations. The definition problem can be only partially solved. Similar motives are seen on the majority of the pottery within this grouping. Cross-hatching motifs, mostly in red paint, covered most of the body of the vessel (Fig. 9.5; Colour Pl. 15). Another feature of interest is the existence of repair holes made by drills. When these pottery vessels broke they were repaired by reeving strings through the perforations (Tekin 2010, fig. 4). No evidence was found for the use of bitumen as a gluing material. Thus it is also possible that some of the perforations, especially those close to the mouth, could have had other purposes, for instance for attaching textiles (Breniquet 2008, 124, fig. 29). Interestingly, one pot in this group was recovered from a burial, where it was employed as a grave good.

The *Standard Hassuna Painted Ware*, finally, represents the fourth main group. This category, too, was first defined at Tell Hassuna (Lloyd and Safar 1945). This grouping comprises smaller portions of the ceramic assemblage in comparison with others. One interesting vessel belonging to this group, found in many sherds, was recovered from the floor of a house in the fifth building level (Tekin 2013, 496, fig. 44.7). This vessel had repair holes made by a drill.



Figure 9.5. (Colour Pl. 15). Hakemi Use. Archaic Hassunan bowl from Level 4.



Figure 9.6. (Colour Pl. 16). Hakemi Use. Samarran sherds from Level 1.

What is known as *Samarran pottery* has a special place among the Fine Ware (Fig. 9.6; Colour Pl. 16). However, Samarra and Standard Hassuna pottery are difficult to distinguish from each other as they share broadly similar technical properties and stylistic patterns. Therefore, we preferred to present the pottery found at Hakemi Use and at the surveyed sites as a single group called “Fine Ware”.

Pottery attributed to this category is stratigraphically limited to the

first and second building levels, and disappears completely by the third building level. The excavations yielded several examples of completely preserved Samarran vessels, which were very similar to examples known from Central Mesopotamia Samarran sites. In addition, a marble female figurine similar to a find from Tell es-Sawwan (Al-Wailly and Abu es-Soof 1965, pl. xxvii) was found in a burial (Tekin 2013, 498, fig. 44.10). This points to the existence of relations between Hakemi Use and Central Mesopotamia beyond pottery style. There are additional arguments for relating Hakemi Use with groups situated far away. For instance, a vertical watery line drawn on the neck piece of a pot points to relationships with Cilicia. A similar pattern is known as the “Lightning Pattern” at Yumuktepe (Caneva 1999, 85, fig. 14).

The excavations at Karavelyan

The excavations at Karavelyan started in 2009. The site consists of two individual settlements situated 100 m apart. The eastern one, known as Hınçıka, was an Assyrian settlement. Karavelyan, to the west, is a mono-period site only inhabited during the Early Halaf Period. The archaeological deposit at Karavelyan are approximately 1 m deep and contain two building levels. The architecture is very poorly preserved. The top-most level 1 yielded rectangular buildings of *pisé* walls without foundation while the second layer contained rectangular architecture with stone foundations. Six burials were unearthed below the upper level. The sizes of the graves and a few well-preserved skeletons show that the burials were those of adult individuals.

About 2000 sherds of pottery have been collected at Karavelyan. Approximately one-third of these are unpainted, while the rest is painted. The pottery of Karavelyan is composed by three main ware groups; the *Coarse Ware* that has been produced using a coarse, organic tempered paste, the mineral tempered *Simple Smoothed Ware* and the *Painted Ware* that composes the majority of sherds. The firing of the vessels at high temperatures, the excellent shaping of vessels and the fine work in decoration display a high proficiency (Fig. 9.7; Colour Pl. 17). The designs are mostly geometrical patterns; typical patterns include wavy strokes, flowers and also birds. Another well-known Early Halafian pattern are the so-called *dancing ladies*. These were mostly drawn with brown pigment on a light background.

Some figurative designs from Karavelyan are of special significance. We may identify special varieties of the well-known bucranium, a yet-to-be-identified animal figure (possibly a donkey), special types of birds, and a lizard. We wish to draw special attention to three sherds

from the neck of a large pot (Tekin 2011b). The largest fragment of these clearly portrays the outlines of a building. The construction has three floors with large poles on the third floor bearing the roof (Fig. 9.8). A large bird, possibly an eagle, painted with its wings open, is about to land on the roof. On the other two sherds two naked female figures are depicted, displaying similar physiognomic features. The female figures appear to be walking towards the building through what may be trees.



Figure 9.7. (Colour Pl. 17). Karavelyan. Early Halafian sherds.

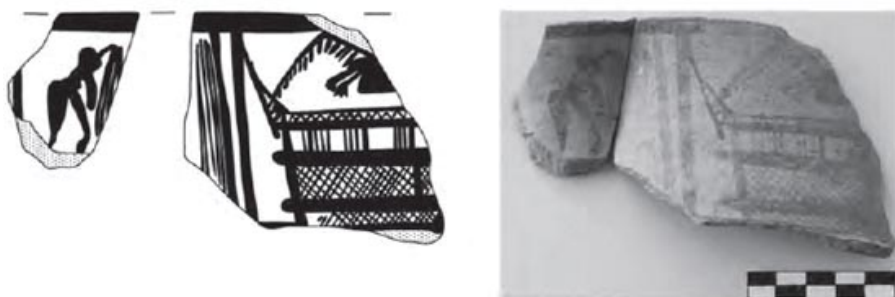


Figure 9.8. Karavelyan. Early Halafian sherds depicting a human and a building.

The closest comparison to this composition comes from the Halaf site of Domuztepe (Campbell 2010, 153, fig. 18.8). On the Domuztepe example, a three-storey building is shown, with birds on the roof and trees between the buildings. The first example of Halaf pottery showing a building figure was a bowl found at Tell Arpaciayah (Hijjara 1978, 126, fig. 1c). These intriguing items provide new insights with

regard to Halafian architectural traditions. They show buildings with roofs made of timber and with upper storeys supported by thick wooden polls. Yet, the precise functions of these Halafian buildings remain a matter of discussion. Whether these were houses, used for domestic purposes, or buildings with a specialized function within the settlement is yet to be ascertained.

Conclusions

The existence of Late Neolithic (or Pottery Neolithic) settlement in the Upper Tigris Valley had already been demonstrated by the excavations at Çayönü (Erim-Özdoğan and Yalman 2004, 92, fig. 14). However, as the research focus at this reputable Neolithic site was on the *Pre-Pottery Neolithic period*, information on the Pottery Neolithic layers remained limited. A few sherds of painted pottery were also found in the infamous Tigris Tunnel, or Birkleyn Cave (Schachner 2006) at the southern foothills of the Taurus. However, as this location was foremost seen from the perspective of the Assyrian Empire, investigations of prehistoric periods were carried out only on a very limited scale.

The investigations by our team on the Pottery Neolithic in the Upper Tigris valley has resulted in new insights in the role this region played in the broader framework of prehistoric Upper Mesopotamia, although many questions certainly remain. We may now firmly state that the Late Neolithic ceramic traditions in the Upper Tigris valley were completely different from those in the Anatolian interior. The Upper Tigris valley falls wholly within the Upper Mesopotamia cultural sphere during the Late Neolithic. The common dominant motifs of crosshatched triangles and shaded cages, attested both at Hakemi Use and at Karavelyan, are also popular in the Upper Mesopotamian Late Neolithic pottery painting traditions.

Interestingly, moreover, in the Upper Tigris valley these motifs were around already since the Pre-Pottery Neolithic A (PPNA). It is possible to identify the earliest examples of these patterns on the chlorite bowls from Hallan Çemi (Rosenberg 2011, 75, fig. 9) and Körtik Tepe (Özkaya and Coşkun 2011, 118, fig. 18) which are dated even earlier to the *Epipalaeolithic*–PPNA transition. Chlorite bowls carrying similar patterns are also encountered in PPNA excavations such as Gûsir Höyük (Karul 2011), Sumaki Höyük (ErimÖzdoğan 2011) and Hasankeyf Höyük (Miyake 2013), all implemented in the course of the Ilisu Dam project.

In fact, most of the patterns identified by our team painted on the pottery obtained during survey and from the excavations at Hakemi

Use and Karavelyan were present in the region since the Epipalaeolithic. The presence of a strong Pre-Pottery Neolithic tradition in the Upper Tigris Valley was of course known already since the beginning of the 1960s thanks to the excavations at Çayönü excavations. However, the strength of this tradition was not always recognized, perhaps because Çayönü was the only excavation compared with many excavations in northern Iraq and northern Syria. We would like to emphasize that the area covered by south-eastern Anatolia equals that of Syria. The rich ecology of this region includes numerous water sources, fertile habitats for farmers and herders, and sources of raw material that are incomparable with those further to the south. The presence of a dense inhabitation during the Late Neolithic is evidenced by Mezraa-Teleilat (Özdoğan 2011) and Akarçay Tepe (Özbaşaran and Güneş 2011).

However, the beginning of the Neolithic in this region is still not clear and the link between the Upper Palaeolithic and the Neolithic is still missing. Although the excavations at Göbeklitepe brought out significant results, as M. Özdoğan has already expressed (Özdoğan 2007, 446), we might have to search the ancestors of the south-eastern Anatolian Neolithic elsewhere. According to the results of several excavations in Syria and in Iraq, the ancestors of these traditions do not seem to have been in southern regions, so, the heartland might have been in the north.

The painted pottery traditions of the Upper Tigris valley can be traced back to the early stages of the Pottery Neolithic observed at Salat Camii Yanı (Miyake 2011, 147, fig. 17, 20) and Sumaki Höyük (Erim-Özdoğan 2011, 55, fig. 32, e–f). In the Late Neolithic, the potters might have painted motifs on the vessels in order to avoid confusions of their products with those of others in pottery kilns during collective firing. On the other hand, independent local workshops might also have produced Hassuna, Samarra and Halafian pottery contemporaneously. However, it is evident that these wares are spread from the Taurus Mountains in the north to the Mesopotamian plains in the south, and from Cilicia in the west to the Lake Urmiye in the east. This distribution might have resulted from the high value of these pottery vessels, or it may have come about as the result of trade goods transported within them. Such suggestions remain speculative presently due to a lack of archaeological evidence.

How may we interpret the vast geographic spread of similar styles of painted pottery made by the same technique at the end of the seventh millennium cal BC? Were these pots produced at a single centre? If so, where might this be situated? What were the modes of

communication between the societies using this pottery? What could have been their common interest? Was the reason behind the circulation of pottery its own value or were these vessels simply used as containers to transport other goods? It is possible to find many different, even contradicting, answers to these questions, but many of these answers may actually be correct. The Upper Tigris Valley lies on the intersection of the natural routes of communication between east and west, and between north and south. The accumulating evidence suggests that prehistoric communities found it easy to communicate with neighbours in different geographic corners.

Thanks to the archaeological investigations conducted in the framework of the Ilisu Dam, we now know that the earliest habitants of the Upper Tigris Valley arrived already during the Epipalaeolithic and continued inhabiting the region without any significant interruption. The emerging evidence suggests continuity of cultural traditions for long periods. The stone bowls used in the Pre-Pottery Neolithic had a similar dark colour as the earliest pottery vessels. Similarly, the linear decorations on these stone bowls appear much later on Late Neolithic ceramic containers as decorating elements.

An important factor contributing to the spread of ideas and ways of making pots relates to the way of life in the Upper Tigris Valley. The excavations at Karavelyan and Hakemi Use suggest that the Late Neolithic inhabitants used light-weight materials for building. Instead of solid buildings of stone and mud brick, people constructed timber alcoves or textile tents. The short distances between settlements suggest that their inhabitants relocated their village frequently. If so, this would have made it easier to circulate cultural material, goods as well as ideas. This may help to explain the quick spread of patterns painted on the pottery across wide areas. The mobile character of Late Neolithic societies in the Upper Tigris valley made it easier to circulate not just the raw materials, but also the cultural material.

To conclude we should remember the thoughts and ideas on the origins of the Neolithic of some important pioneers. Robert Braidwood (Braidwood and Howe 1960) and James Mellaart (1975) already pointed out that this origin may have been in the Upper Tigris valley. They made their predictions thirty years before the start of significant archaeological work in this area. The now rapidly increasing numbers of excavations and surveys in this region only confirms the far-sightedness of these esteemed scientists.

Bibliography

Al-Wailly, F. and Abu es-Soof, B. (1965) The excavations at Tell es-Sawwan, first preliminary

- report (1964). *Sumner* 21, 17–32.
- Bernbeck, R. and Nieuwenhuyse, O. P. (2013) Established paradigms, current disputes and emerging themes: the state of research on the Late Neolithic in Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting The Late Neolithic of Upper Mesopotamia*, 17–37. Turnhout, Brepols.
- Braidwood, J. R. and Howe, B. (1960) *Prehistoric Investigations in Iraqi Kurdistan*, Chicago, University of Chicago Press.
- Breniquet, C. (2008) *Essai sur le Tissage en Mésopotamie, des premières communautés sédentaires au milieu du IIIe millénaire avant J.-C.*, Paris, De Boccard.
- Campbell, S. (1992) *Chronology Change in the Later Neolithic of North Mesopotamia*, Edinburgh, Edinburgh University Press.
- Campbell, S. (2010) Understanding symbols: putting meaning into the painted pottery of prehistoric Northern Mesopotamia. In D. Bolger and L. C. Maguire (eds) *Development of Pre-State Communities in the Ancient Near East, Studies in Honour of Edgar Peltenburg*, 147–155, Oxford, Oxbow Books.
- Caneva, I. (1999) Early farmers on the Cilician coast: Yumuktepe in the seventh millennium BC. In M. Özdoğan and N. Başgelen (eds) *Neolithic in Turkey, the Cradle of Civilization*, Vol. 1, 105–114, Vol. 2, pls, 80–86, Istanbul, Archaeology and Art Publications.
- Erim-Özdoğan, A. (2011) Sumaki Höyük, a new Neolithic settlement in the Upper Tigris Basin. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research, Tigris Basin*, 19–60, Istanbul, Archaeology and Art Publications.
- Erim-Özdoğan, A. and Yalman N. (2004) Clay vessels and pottery comments on Çayönü Pre-Pottery and Pottery Neolithic finds (Turkish). *Turkish Academy of Sciences Journal of Archaeology* 7, 65–92.
- Hijjara, I. (1978) Three new graves at Arpachiyah. *World Archaeology* 10/2, 125–128.
- Karul, N. (2011) Gusir Höyük. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research, Tigris Basin*, 1–17, Istanbul, Archaeology and Art Publications.
- Le Mièrre, M. and Nieuwenhuyse, O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad. The Late Neolithic Settlement*, 119–284, Istanbul, Nederlands Historisch-Archaeologisch Instituut.
- Lloyd, S. and Safar, F. (1945) Tell Hassuna excavations by the Iraq Government Directorate General of Antiquities in 1943 and 1944. *Journal of Near Eastern Studies* 4, 255–289.
- Mellaart, J. (1975) *The Neolithic of the Near East*, London, Thames and Hudson.
- Miyake, Y. (2011) Salat Camii Yanı, a Pottery Neolithic site in the Tigris valley. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research, Tigris Basin*, 129–149, Istanbul, Archaeology and Art Publications.
- Miyake, Y. (2013) Hasankeyf Höyük. *Arkeoatlas* 8, 40–47.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery, the Rise of Late Neolithic Ceramic Styles on the Syrian and Northern Mesopotamian Plains*. Turnhout, Brepols.
- Özbaşaran, M. and Güneş, D. (2011) A PPNB and PN settlement in Middle Euphrates-Urfa. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, Euphrates Basin*, 165–202, Istanbul, Archaeology and Art Publications.
- Özdoğan, M. (2007) Bazı Genellemeler-Öngörüler. In M. Özdoğan and N. Başgelen (eds) *Türkiye’de Neolitik Dönem*, 441–458, Istanbul, Arkeoloji ve Sanat Yayınları.
- Özdoğan, M. (2011) Mezraa-Teleilat. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, Euphrates Basin*, 203–265, Istanbul, Archaeology and Art Publications.
- Özkaya, V. and Coşkun, A. (2011) Körtik Tepe. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research*, 89–127, Istanbul, Archaeology and Art Publications.
- Rosenberg, M. (2011) Hallan Çemi. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research*, 59–78, Istanbul, Archaeology and Art Publications.
- Schachner, A. (2006) Birkleyn Mağaraları (Dicle Tüneli) Yüzey Araştırması, 2004. 23. *Araştırma Sonuçları Toplantısı*, 1. Cilt, 367–384, Ankara, T.C.Kültür ve Turizm BakanlıkKültürvarlıkları ve MüzelerGenel Müdürlüğü.

- Tekin, H. (2007) New discoveries concerning the relationship between the upper Tigris region and Syro-Cilicia in the Late Neolithic. *Anatolian Studies* 57, 161–169.
- Tekin, H. 2010 New discoveries on a Hassuna/Samarran site on the Upper Tigris region: Hakemi Use. In P. Matthiae, F. Pinnock, L. Nigro and N. Marchetti (eds) *Proceeding of the 6th International Congress on the Archaeology of the Near East. May, 5th–10th 2008, Università di Roma*, 685–696. Wiesbaden, Harrassowitz.
- Tekin, H. (2011a) Hakemi Use, a newly discovered Late Neolithic site in Southeastern Anatolia. In M. Özdoğan, P. Kuniholm and N. Başgelen (eds) *The Neolithic in Turkey, New Excavations and New Research, Tigris Basin*, 151–172, Istanbul, Archaeology and Art Publications.
- Tekin, H. (2011b) A Halaf vessel recovered at Karavelyan excavations depicting a human and a building. *Turkish Academy of Sciences Journal of Archaeology* 14, 309–312.
- Tekin, H. (2013) The contribution of Hakemi Use of the prehistory of Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 493–502, Turnhout, Brepols.

Pots to be seen

Olivier Nieuwenhuys

Abstract

Late Neolithic painted pottery styles are often interpreted as symbolic systems of visual communication. This paper explores a basic requirement for any visual communication: visual contrast between signs and background noise. The painted pottery styles that arose in Upper Mesopotamia in the later seventh millennium emphasized delicately-shaped, elaborately-decorated serving vessels used in contexts involving serving and consuming food and drink, at the level of the individual household and in community-wide feasts. Painted pottery became instrumental in forging social networks beyond the local horizon; they were pots to be seen. This paper highlights various strategies adopted by potters to enhance contrast between the painted decoration and the surface background. I briefly contrast painted styles with appliqué-decorated vessels, arguing that this category emphasized non-visual senses. I conclude with discussing the context of ceramic innovation arguing that at least in part potters innovated to maximize visibility and intelligibility.

Introduction

The elaborate painted pottery styles that characterize the later parts of the Late Neolithic period in the ancient Near East – broadly known after their eponymous sites, the Hassuna, Samarra and Halaf styles (for a summary, Akkermans and Schwartz 2003) – have spawned a remarkably diverse range of interpretative approaches. Many of these share the view that, one way or another, these painted styles represent symbolic communication. Thus, early scholars saw differences between styles of pottery as transmitting messages of group affiliation and ethnicity (Mellaart 1975). Subsequently, stylistic attributes such

as design motifs became a primary tool for measuring social interaction (Perkins 1949; LeBlanc and Watson 1973; Davidson 1977; Redman 1978). Sophisticated statistics were sometimes employed to measure the degrees of similarities between motif assemblages from different Halafian sites.

More recently, scholars have adopted a more explicit linguistic metaphor (Hole 1984; Bernbeck 1994). Painted styles, in this view, should be seen as to some degree analogous to language. Human language and painted designs share a “textual” practice of spacing and differentiating of units (Tilley 1991). Thus, Frank Hole (2013, 78–79; this vol.), has likened design elements or “motifs” to morphemes, or letters of an alphabet. In the same way that in human language these are combined to create words and sentences using syntax rules or “grammars”, a finished, elaborately-painted Halaf vessel should be seen as the prehistoric equivalent of a written text. Using this useful insight scholars may move on to investigate the way Late Neolithic potters in the Halaf tradition gave local expression to a shared stylistic idiom, creating identifiable local “dialects”. Frank Hole (2013; this vol.) has done so for the Halaf tradition, for instance, while Reinhard Bernbeck (1994, 129–141; 2008) identified regional “dialects” within the Samarra tradition.

Others have searched for specific meanings in the painted motifs. The intriguing figurative designs, not surprisingly, have invited a wide range of interpretations (Erdalkiran this vol.; Robert this vol.). As to the non-figurative, geometrical motifs (Hole’s “morphemes”), these have been interpreted as simply stylized versions of originally figurative designs (Mallowan and Cruikshank-Rose 1935), or as skeuomorphs of basketry and textile (Wengrow 1998; Breniquet this vol.). Elsewhere (Nieuwenhuyse 2007) I argued the opposite, that they did *not* carry any specific meaning but instead functioned as a kind of “lingua franca”, a neutral stylistic idiom not associated with localized meanings and, hence, capable of drawing in regional, dispersed Late Neolithic groups as participants. Charvát (2005), finally, has argued that specific colours symbolized different aspects of the Late Neolithic world view.

A common element in these various approaches is their emphasis on visually transmitted stylistic information. Implicitly or explicitly they accept that social and symbolic meanings essential to prehistoric communities were brought across through groups and individuals *seeing* painted pottery containers associated with other groups or individuals. Style change involved emulation and local copying after visual observation. This basic assumption finds support in

ethnographic work showing the ease with which interacting potters copy design motifs from each other (Hardin-Friedrich 1970). Following the insight that visual information to some degree is structured the way written texts are, studies have explored either the textual messages themselves – specific painted pots being the prehistoric equivalent of today’s books and newspapers – or the underlying rules that guide their production. They focus on the equivalents, so-to-speak, of grammars and speech. In this contribution I focus on the relatively neglected intermediate stage, that of *writing*.

If we accept a textual metaphor, we should acknowledge that grammar rules exist by virtue of their manifestation in material form (Renfrew 2004), be this printed text in books or newspapers, knotted cords in the Central American quipa, cuneiform signs impressed in clay tablets, or, indeed, intricate motifs painted on a Halafian Fine Ware bowl. The stage of “writing” refers to the process through which underlying grammar rules or world views are materialized in specific, culturally embedded forms; it connects grammar with speech. Late Neolithic painted vessels were not simply reflections of platonic abstractions; they were material artefacts. As such they embody a range of limitations and possibilities. Cognitive grammars may inform the spacing of individual signs in the physical world, but a crucial prerequisite to their identification is their *visibility*. Readers of text must identify individual words and their arrangements into sentences; in the Late Neolithic context “readers” of prehistoric pots must identify the individual painted motifs and their arrangements on the pot.

Of course, a wide range of factors affected visibility, and hence intelligibility, of painted designs. In the Late Neolithic these included the composition of the audience, the spatial context of use, the physical size of the painted configurations, even the size of the vessels (Hopwood this vol.). As Le Mière, Özbaşaran and Picon show (this vol.), a key factor affecting painted design intelligibility is the contrast between the painted designs and the surface background of the pottery vessel. If indeed we may compare prehistoric painting styles with human language, and painted pots with “text”, it may be useful to realize that in today’s printing we have developed efficient ways of maximizing contrast. Since the invention of book printing text is mostly shown as black on white; a strategy continuing even in today’s iBooks. If newspaper editors were to print white ink on white paper they might sell little: the individual signs would not stand out sufficiently against the background “noise”.

While evidently prehistoric potters are not today’s newspaper

editors, I argue that concerns with visibility and intelligibility were relevant in the Late Neolithic. This leads me to consider some of the ways in which Late Neolithic potters attempted to achieve contrast between their painted designs and the empty vessel surface. I shall briefly discuss aspects of the *chaine opératoire* that gave rise to specific colour combinations of painted design versus surface background of the various Late Neolithic ceramic categories. I present no new archaeometric data but limit myself to a review of published ceramic-technological studies.

Methods

Rather than taking on the Late Neolithic as a whole, I limit this discussion to the earliest stages of the Halaf period, mainly using evidence from Tell Sabi Abyad in northern Syria (Akkermans 1989; 1993; Akkermans *et al.* 1996). This well-studied sequence allows us to follow ceramic change in detail and to explore how potters innovated. During the later seventh to the early sixth millennium (c. 6300–5900 cal BC) a remarkable variety of ceramic styles and decorative technologies are attested. During what is known as a Transitional (or Proto-Halaf) phase between the Pre-Halaf and the Early Halaf phases these became replaced by a slightly more homogeneous assemblage dominated by a single (if heterogeneous) category of painted Fine Ware (Akkermans 1989; Le Mière and Nieuwenhuyse 1996; Nieuwenhuyse 2007).

Evaluating design-background contrast quantitatively presents a challenge. Anthropologists, psychologists, artists, and commercial companies have developed diverse ways of measuring colour (Hunt 1987; Jones and MacGregor 2002). At Tell Sabi Abyad, as at archaeological sites in general, colours of surfaces and painted designs were measured with the Munsell colour chart (Munsell 1912). This allows a largely intuitive, semi-quantitative evaluation of design-background contrast. Albert Munsell's system distinguishes colour on the basis of three parameters (Cleland 1921). *Hue* concerns the quality by which human perception distinguished one colour from another: red, yellow, green, blue or purple and intermediate versions thereof. *Chroma* refers to the perceived strength of a colour, or the degree of its visual difference from a neutral, grey background of similar lightness. *Value*, finally, is the quality by which lighter varieties of a colour are distinguished from darker varieties. Value is an indication for *lightness* of any colour. Value ranges on a scale from zero to ten, with zero values representing the ideal white and ten representing ideal black. In practice, these ideal values hardly occur; pottery sherds

mostly gain values between two and eight.

For present purposes, I shall use differences in hue and value as indicators for relative contrast. Strongly diverging hues and, in particular, values enhance the perception of contrast. It is emphasized, however, that human colour perception is considerably more complex than a simplistic list of Munsell values (Chapman 2002). For instance, the perception of lightness of any given painted symbol depends on the value for its surrounding background. The same shade of grey will appear darker if printed on white than if printed on buffish-brown; *vice versa* a dark background makes any given pigment appear lighter. This characteristic is difficult to catch in quantitative terms. As well, even if we accept that colour perception is mediated by universals of our species' physiology, anthropologists have also shown that it is deeply embedded in culturally specific practices and cosmologies (Jones and MacGregor 2002). Here I shall not be concerned with broader questions of symbolic meanings of Late Neolithic colour classifications (see Charvát 2005), but instead keep a more narrow focus on the issue of contrast.

Painted pots in the Late Neolithic

Before moving on to a discussion of specific pottery groups it may be instructive to briefly discuss the social context of painted pottery consumption in the Late Neolithic. What audiences were painted vessels targeted to and in what contexts were they employed? It is sobering to realize that notwithstanding the enormous advances made over the past decades in understanding many aspects of Late Neolithic pottery production and consumption these key issues remain difficult to address.

The available iconographic evidence from the Late Neolithic is not very instructive with regard to the employment of pottery vessels. Large jars are occasionally shown in a prominent position, for instance in an open space – a “plaza”? – between buildings at Domuztepe (Campbell and Fletcher 2013, [fig. 2.5](#)) or in relationship with ritual activities at Arpachiyah (Hijjara 1978). It remains unclear what was contained in these jars or even if they were plain or painted. Painted compositions on Halaf Fine Ware portraying groups of people may convincingly be reconstructed as showing dancing and feasting (Garfinkel 1998; 2003; Nieuwenhuyse 2007), but so far these scenes do not include images of (painted) pottery that presumably would have figured prominently in such events.

Excavated Late Neolithic villages show a wide range of contexts in which plain and painted vessels were used – domestic buildings in

various forms, industrial quarters, storage, courtyards, and extensive open areas. Yet, the few studies that have incorporated an adequate consideration of depositional and post-depositional conditions show that these considerably complicate any spatial reconstruction of activities (Verhoeven 1999). Ethno-archaeological reconstructions of Halaf villages have buildings surrounded with an array of pottery vessels (e.g. Seeden 1982), but such reconstructions remain conjectural. Simply, we do not know precisely *where* (painted) pottery vessels were put to use. Thus, the Early Halaf village at Tell Sabi Abyad (Operation I, level 3) consisted of a series of buildings with stone foundations surrounding a huge open “plaza” (Fig. 10.1). However, spatial distributions of artefacts recovered from this village so far suggest no clear patterning (Verhoeven 1999). Painted compositions on Halaf Fine Ware portraying groups of people may convincingly be reconstructed as showing dancing and feasting, but it remains unclear where such events took place.

In general, however, we may surmise that communal events involving the use of painted ceramics were mostly localized outdoors. The small interior spaces characterizing most Late Neolithic excavated buildings simply would not have facilitated large-scale feasts or communal commensality events inside of the buildings. At Halaf sites in general the proportion of covered, interior space is typically less than 50% (Pollock 2013, 174). Activities were mostly in full view of others, inviting comment and participation (Pollock 2013, 174). Apart from the putative “plaza”, the inhabitants of the Early Halaf village at Tell Sabi Abyad may have used the extensive roofs of their buildings as a living surface, or they may have demarcated space in the open fields surrounding the village. At the Halaf site of Domuztepe, large, community-wide rituals occurred in the outdoors, open spaces between buildings; these rituals involved the deposition of human bodies, animals, artefacts, and a fair amount of painted pottery (Irving and Heywood 2005; Campbell and Fletcher 2013, 42–43; Croucher 2013, 197).

The ceramics themselves forcefully suggest employment in communal activities in which visual identification of painted pottery containers was important. In the later seventh millennium to early sixth millennium conspicuous changes in decoration style occurred over time spans short enough to fall within discursive memory. The wide variation not only in motifs and design structures but also in the quality of the design execution makes it clear that these vessels were indeed made to be seen (Hole 2013, 85). Furthermore, stylistic innovation in painted decoration emphasized open shapes such as

bowls, goblets and small jars that would have been suitable foremost for serving and consuming food and drink. Compared to contemporaneous plain vessels the painted serving vessels tend to be thin-walled, more carefully finished with smoothing or burnishing, and of limited size. As well, potters may have employed different tempering strategies for plain and painted categories of pottery vessels, selecting finer fabrics for the painted serving vessels (Le Mière and Nieuwenhuyse 1996, 129–132; Nieuwenhuyse 2007, 74–78).

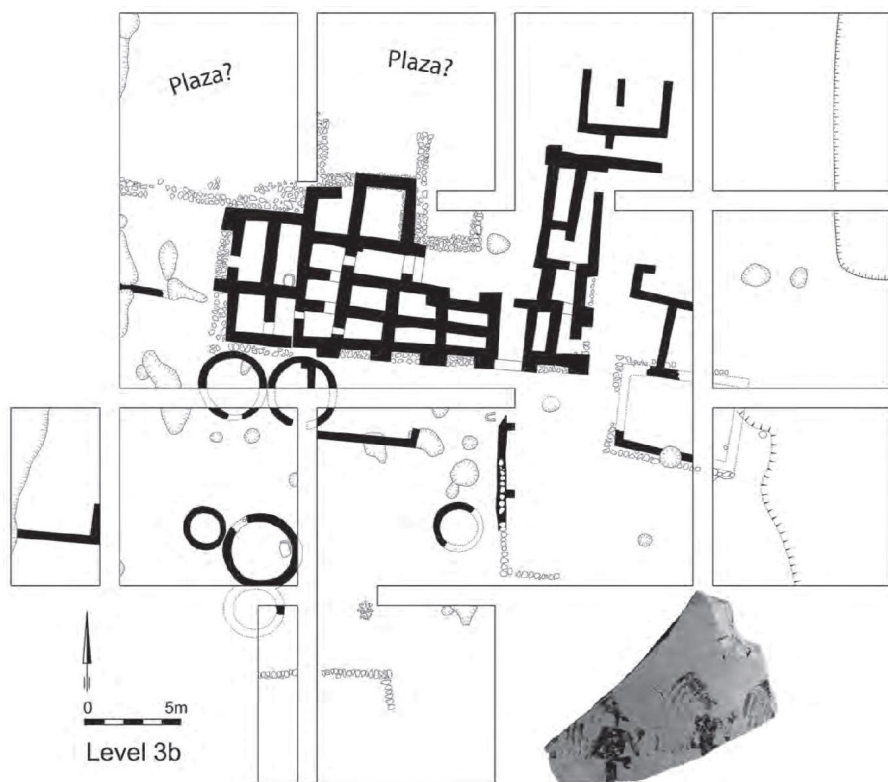


Figure 10.1. Tell Sabi Abyad, level 3. Village plan and a depiction of, presumably, “dancing” people painted on Halaf Fine Ware pottery.

Painted pottery, then, emphasized small, thin-walled serving vessels from which people ate and drank (see Fig. 10.4). They were put to use in a variety of commensality events that included daily meals within the small kin group as well as larger, communal rituals. Size range distributions of painted serving vessels from this period indeed show that painted vessels targeted both individuals and groups (Nieuwenhuyse 2007). Often used in out-doors contexts in a broad variety of settings, painted pots were looked at and, we may assume, commented upon. In short, they were pots to be seen.

Manipulating surface-background contrast

Let us examine more closely some of the material forms in which stylistic messages were communicated through the medium of painted pottery containers in the Upper Mesopotamian Late Neolithic. In rough chronological order I shall discuss painted Standard Ware, plastered-and-painted Standard Ware, Orange Fine Ware, bitumen-painted Standard Ware, bitumen-painted Orange Fine Ware, incised-and-plastered Grey-Black Ware, and, finally, Standard Fine Ware and Halaf Fine Ware.

Red-on-brown: painted Standard Ware

After about half a millennium of using plain, coarsely-made, plant-tempered ceramics, at the end of the seventh millennium painted and slipped decoration were introduced into pottery assemblages across Upper Mesopotamia. These assemblages are regionally known as Pre-Halaf or Proto-Hassuna; the painted pottery is known as Coarse Ware, painted Proto-Hassuna or, at Tell Sabi Abyad, *painted Standard Ware* (Fig. 10.2/Colour Pl. 18). At Tell Sabi Abyad painted Standard Ware began during the Pre-Halaf phase (6300–6100 cal BC) and continued into the Transitional stage (6100–5900 cal BC) (Fig. 10.2, a–b).

Studies show that the paints and slips used for adorning Standard Ware were clay slips enriched with iron oxides (“ochre”) (Le Mière and Nieuwenhuyse 1996; Faura and Molist this vol.). The firing was short and at low temperatures, but generally resulted in oxidizing conditions. The painted vessels came out red to reddish-brown on a buff to brown or reddish-brown surface (Table 10.1). The net effect, then, was a “red-on-brown” or a “red-on-reddish-brown”.

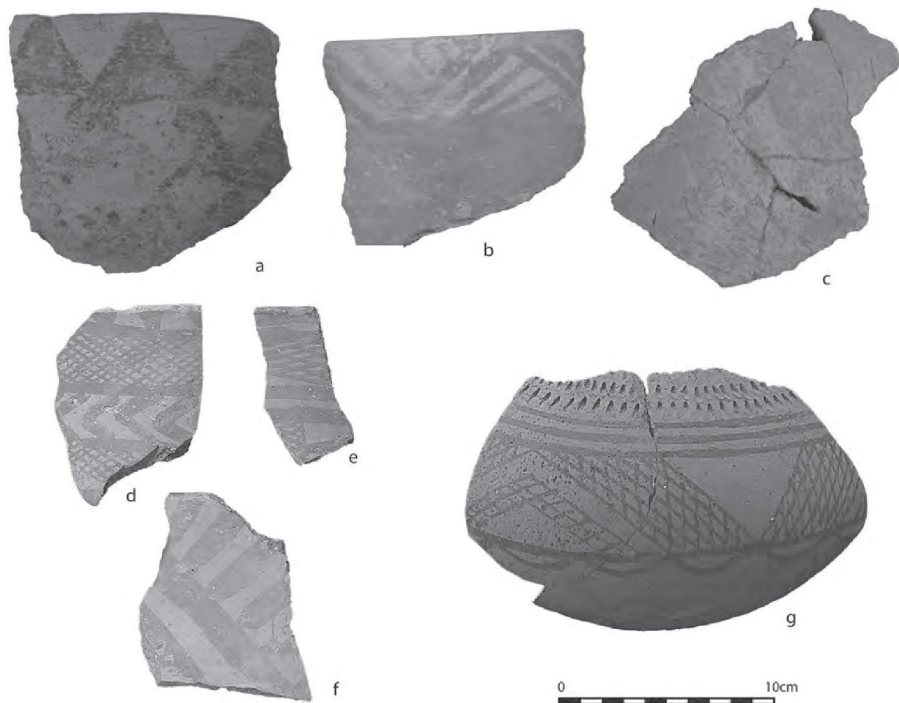


Figure 10.2. (Colour Pl. 18). Tell Sabi Abyad: a–b: red-painted Standard Ware; c: white-slipped-and-painted Standard Ware; d–f: Orange Fine Ware. No. g: Fine Painted Ware (after Nieuwenhuyse 2007).

Table 10.1. Tell Sabi Abyad. Munsell Soil Colour Chart notations of surface background and painted design for painted ceramic wares 6300–5900 cal BC. Note that the Munsell notations are averaged values and ignore significant variation within groups (after Le Mièrre and Nieuwenhuyse 1996; Nieuwenhuyse et al. 2001; Nieuwenhuyse 2007)

	Surface	Design
Painted Standard Ware	7.5YR7/3–8/4 to 2.5YR7/3–7/4, pink, to 7.5YR6/3–4, light brown	10R4/6–4/8 to 10R5/6–5/8, red, to 2.5YR4/6, red
Plastered-and-painted Standard Ware	2.5YR8/1 to 10YR8/1, white, to 10YR7/4–8/3, very pale brown	10R4/6–4/8, 10R5/6–5/8, red
Painted Orange Fine Ware	5YR7/3, pink	2.5YR5/4, weak red
Painted Fine Painted Ware	10YR7/3, very pale brown, to 5YR7/3, pink	2.5YR6/6, red, to 5YR5/4, reddish brown
Bitumen-painted Standard Ware	7.5YR7/3–8/4 to 2.5YR7/3–7/4, pink,	2.5YR2,5/1 to 5YR2,5/1, black

	to 7.5YR6/3–4, light brown	
Slipped-and-bitumen-painted Standard Ware	10R4/6–4/8, to 10R5/6–5/8, red, to 2.5YR4/6, red	2.5YR2,5/1 to 5YR2.5/1, black
Incised-and-plastered Grey-Black Ware	5YR2.5/1, black, to 7.5YR3/1, very dark grey	2.5YR8/1 to 10YR8/1, white
Painted Standard Ware	10YR8/2–8/4, very pale brown	10YR4/4–3/6, dark yellowish brown, to 10YR3/2, dark greyish brown, to 5YR3/1, very dark grey, to 10YR2/1, 7.5YR2.5/1, black

Red-on-white: plastered-and-painted Standard Ware

In the earliest stages of the Pre-Halaf period at Tell Sabi Abyad we find a rather short-lived decorative style based on covering the coarse surface of Standard Ware with a thin white coating and applying mat, fugitive red-painted motifs (Table 10.1). Interestingly, the properties of the technology suggest that some of these red-on-white designs were made *after* the firing. This approach to painting pottery containers is also attested in the northern Levant (Nieuwenhuyse 2009). The technology hints back at older practices of painting containers made of lime or gypsum plaster and frescos on plastered floors and walls (Nilhamn and Koek 2013; Nilhamn this vol.; Faura and Molist this vol.).

Archaeometric work suggests that different raw materials and technologies were involved (Megens and Nieuwenhuyse forthcoming). For pigment the potters used iron oxides admixtures, probably very similar as those used for painting Standard Ware in general (for a discussion of Halaf ceramic pigments see Gomez-Bach this vol.). Some of the coatings seem to consist of light-firing clay slip that may well have been a “self slip”. Others seem to have been gypsum, whereas yet others appear to be calcium carbonate (“lime”). Occasionally we may reconstruct these as remnants of much thicker plaster layers, but in many cases the potters seem to have deliberately applied a thin, fugitive white layer as a basis for painted decoration. The effect was a “red-on-white” design (Fig. 10.2, c).

Red-on-pink: painted Orange Fine Ware

What is known as *Orange Fine Ware* represents an intriguing Upper Mesopotamian ceramic group during the transition stage (or Proto-Halaf) between the Pre-Halaf (or Proto-Hassuna) and Early Halaf stages (Le Mière and Nieuwenhuyse 1996; Le Mière 2000; Nieuwenhuyse 2007, 86–87; Gregerová *et al.* 2013; Tekin this vol.). In contrast to Standard Ware, for OFW potters employed clay that mostly lacked plant inclusions, but instead contained coarse lumps of calcium carbonate and other minerals (Nieuwenhuyse *et al.* 2001). Attested at numerous sites in northern Syria and southeastern Turkey, and in spite of its name, this was relatively coarse pottery. The vessels were very frequently decorated, either by painting or with a red slip on a burnished surface.

Fired at low temperatures and short intervals, Orange Fine Ware vessels often show dark, incompletely oxidized cores. Firing conditions were generally oxidizing, however, resulting in surfaces gaining an orange-pinkish colour. The pigments gained colours that were not very dissimilar (Table 10.1). The effect, then, was a red-on-red, red-on-pink, or pink-on-orange, depending on the specific composition of the clay fabric and pigment and the details of the firing (Fig. 10.2, d–f). Especially intriguing are occasional examples of red-painted designs on a red-slipped background; offering minimal contrast these motifs had minimal visibility even from a close distance. Possibly this issue was irrelevant to those who produced the Orange Fine Ware, but it is perhaps more likely that the Orange Fine Ware potters had no alternative. They may have lacked the more specialized expertise needed to produce the Standard Fine Ware (see below).

Red-on-buff: painted Fine Painted Ware

A minor ceramic category at Tell Sabi Abyad during the early stages of its Transitional stage is known as Fine Painted Ware. This category comprised thin-walled, small bowls and goblets painted with intricate cross-hatched designs, sometimes with tiny impressions (Le Mière and Nieuwenhuyse 1996, 169–170; Nieuwenhuyse 2007, 88–90). The pigment colours with this pottery were red; surfaces are mostly buff to light brown (Table 10.1), pointing to prevailing oxidizing circumstances in the kiln. The net effect as far as design-background contrast is concerned was very similar to that of the red-painted Standard Ware, a red-on-buff (Fig. 10.2, g).

Black-on-brown: bitumen-painted Standard Ware

Limited to the early stages of what has become known as the

Transitional (or Proto-Halaf) phase, some of the potters experimented with applying motifs to Standard Ware vessels by scratching them with lumps of bitumen (Nieuwenhuyse 2007, 77–78, 177–179; Tekin this vol.). The bituminous pigment resulted in dark colours whereas the surface background was that of Standard Ware in general (Table 10.1; Fig. 10.3/Colour Pl. 19). We may reconstruct the *chaine opératoire* of this style on the basis of an intriguing ethnographic comparison. Some decades ago Matson (1983, 623) observed very similar-looking pottery being made in a modern Diyala village. The vessels were treated when still warm from the firing, causing the bitumen to melt. Both in the Diyala and in the Late Neolithic the technique favoured a relatively crude style, characterized by a rudimentary design structure and a limited range of mostly simple motifs. Typically, the “painted” lines are very thick (Fig. 10.3, a–b). The effect was a black-on-brown or black-on-buffish-orange painted design.



Figure 10.3. (Colour Pl. 19). Tell Sabi Abyad: a–b: bitumen-painted Standard Ware; c–f: Standard Fine Ware; g–h: incised-and-plastered Grey-Black Ware (after Nieuwenhuyse 2007).

Black-on-red: slipped-and-bitumen-painted Standard Ware

Occasionally potters sought to overcome the limitations inherent in bitumen scratching, moving away from the primitive style associated with this technique. We know of just a few examples of the use of bitumen to create small, intricate, very neatly executed motifs that, interestingly, closely mirror those of the painted Fine Ware (Nieuwenhuyse 2007, pl. 65, 10–16). They were in all cases executed over a red slip, a combination so far attested only with Standard

Ware. The result was a black-on-red.

White-on-black: incised-and-plastered Grey-Black Ware

As this peculiar strategy has already been discussed by Marie Le Mière, Mihriban Özbaşaran and Maurice Picon (this vol.) I shall do little more than just mention it. The term Grey-Black Ware refers to a carefully crafted, thoroughly-burnished, and purposely-reduced ceramic group (Le Mière and Nieuwenhuyse 1996, 128). In the final stages of the later seventh millennium some of these dark-coloured vessels were given incised-impressed decoration, and occasionally the voids were filled-in with a white substance (Table 10.1). This resulted in a stunning white-on-black effect (Fig. 10.3, g–h). In effect, these vessels reached the maximum motif-background contrast that was technically possible. While effective, however, in time this technique was abandoned. Instead potters developed its structural opposite, the category known as Standard Fine Ware (see below).

Black-on-white: painted Standard Fine Ware

At the close of the seventh millennium, finally, Upper Mesopotamian potters made a ceramic-technological “discovery” that would have far-reaching repercussions. In northern Syria and south-eastern Turkey the introduction of what is known as Standard Fine Ware marks the start of a transitional stage between the Pre-Halaf or ProtoHassuna phase and the Early Halaf. During this short-lived stage between 6100 and 5950 cal BC, alternatively termed “Transitional” or “Proto-Halaf” (Cruells and Nieuwenhuyse 2005), the proportion of Fine Ware ceramics rose rapidly, replacing almost all of the other, older, pottery traditions, until by the Early Halaf phase the far majority of the ceramic assemblage (over 80% of the assemblage) consisted of Fine Ware (Nieuwenhuyse 2007, 51–68). Most of this pottery was painted (see Fig. 10.7).

Readers should be aware of the complexities of Late Neolithic ceramic terminology (Akkermans 1993; Bernbeck 2008; Bernbeck and Nieuwenhuyse 2013; Cruells this vol.; Hole this vol.). Here I use the generic term “Fine Ware” to encompass a broad variety of thin-walled, finely mineral-tempered, well-smoothed (but never burnished) ceramics, which also includes the decorative styles known in northern Iraq as Standard Hassuna Painted and Classic Samarra. The northern Syrian Standard Fine Ware is sometimes seen as a “western offshoot” of these northern Iraqi groups (Bernbeck 1994; Gut 1995). Whatever definition one prefers, what unites these various sub-categories is the application of a mostly dark paint on a light surface background

(Table 10.1). What further distinguishes them from their predecessors is the extraordinary elaboration of the painted designs, which in time reached unprecedented complexity (Fig. 10.3, c–f). In Syria at least, this category evolved into Halaf Fine Ware during the Early Halaf period (Fig. 10.4/Colour Pl. 20). Many Early Halaf painted vessels gained a glossy, dark-grey to solid black paint.

Archaeometric work has shown that to gain these dark pigments the potters used forms of iron oxide that were essentially very similar to those they had been using before (Noll 1991; Nieuwenhuyse *et al.* 2001; Nieuwenhuyse 2007, 93). In oxidizing firings, as had generally prevailed until then, such pigments turn out reddish or pinkish – witness the Orange Fine Ware and red-painted Standard Ware. In a purposely reduced firing, as employed by the Grey-Black Ware potters (see above), they may turn dark but so would the background surface. The key to maximum contrast is to carefully and remarkably skilfully manipulate alternating cycles of oxidation, reduction and re-oxidation (Noll 1991; Nieuwenhuyse 2007, 94–96). As explained by Le Mière, Özbaşaran and Picon (this vol.), in addition to oxygen cycles other factors play important roles in establishing the desired colours, including firing temperatures, duration of the firing, thickness of the paints, and porosity of the clay fabric. The potters do not seem to have added a separate light-coloured slip to enhance design-background contrast even further, but they do seem to have appreciated the effects of a “self slip” (Van As and Jacobs 1989; Nieuwenhuyse *et al.* 2001). The wide distribution of Standard Fine Ware across the Upper Mesopotamian Late Neolithic (Nieuwenhuyse 2000; Campbell and Fletcher 2013, 45; Tekin this vol.) suggests that the technique spread remarkably fast.

Visual versus tactile communication?

To place the various painted styles in a broader perspective, let us make a brief excursion to an entirely different approach to stylistic communication. Late Neolithic ceramic styles may not only have appealed to the *visual* senses. More to the point I argue that whereas some decorative styles, including the various painted styles discussed above, aimed specifically to the visual, the Late Neolithic world knew others that aimed to the non-visual, specifically the *tactile* senses. If some pots were there to be seen, others were to be *touched*. I propose that this held especially for coarse, plant-tempered Standard Ware provided with applied decoration.

At Late Neolithic sites across Upper Mesopotamia applied decoration occurs with Standard Ware during the Pre-Halaf, Proto-

Hassuna and Transitional (Proto-Halaf) stages (c. 6300–6000 cal BC). The applied motifs were mostly geometric, but occasionally included representations of animals or humans, or figures of which it remains unsure if they index humans, animals, or supra-natural mixtures thereof (*Mischwesen*). In stark contrast to the various painted styles, the applied style emphasizes isolated, unique imagery placed onto the vessel in an unbounded, non-repetitive manner (Fig. 10.6). This conspicuous, and consistent, structural-grammatical discrepancy suggests that the range of social and symbolic meanings of this stylistic category differed from those of the painted styles. Almost certainly these images made reference to specific concepts known and recognized by the Late Neolithic communities. These concepts, of which the exact meaning is lost to us, at a broad level may have included magical or mythological entities (Nieuwenhuyse 2007, 205–211; Campbell and Fletcher 2013, 45–46).

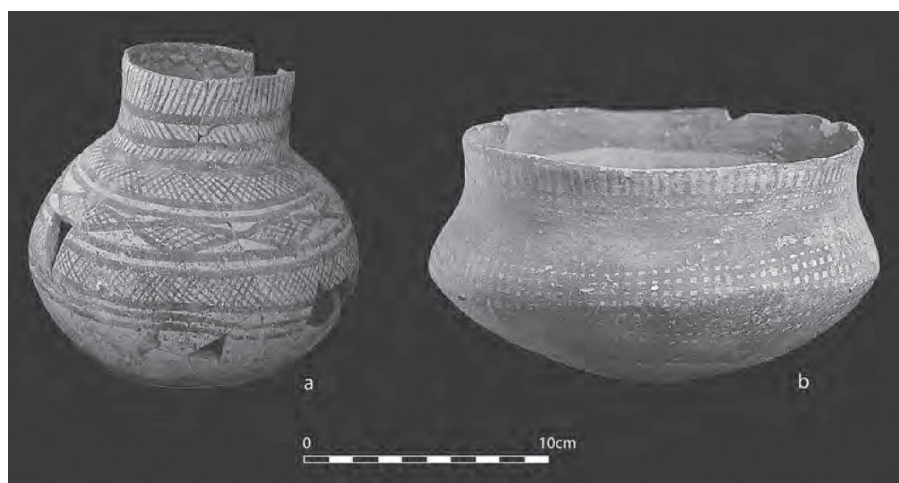


Figure 10.4. (Colour Pl. 20). Tell Sabi Abyad: a: Standard Fine Ware; b: Halaf Fine Ware (after Nieuwenhuyse 2007).

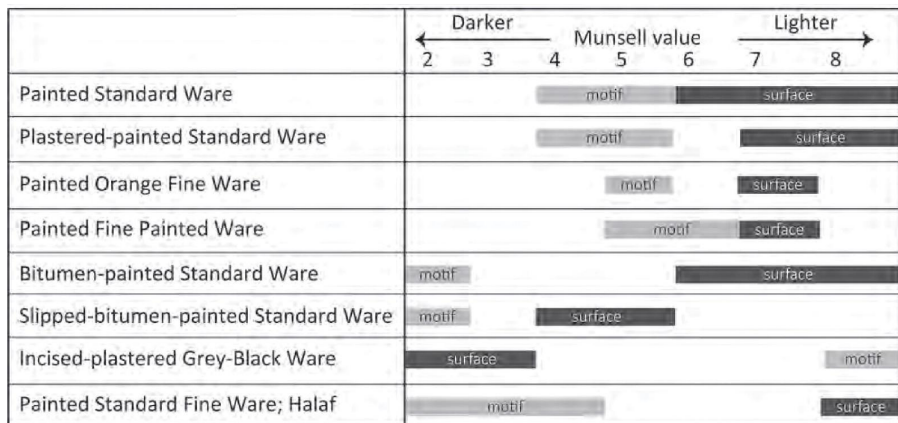


Figure 10.5. Tell Sabi Abyad. Darkness-lightness (Munsell) values of surfaces and painted motifs of ceramic wares 6300–5900 cal BC.

There were clear functional discrepancies as well between painted and applied pottery containers. Whereas the former accentuated the functional category of portable serving vessels, applied Standard Ware containers were comparatively heavy, capacious, often closed containers, most of them befitting the term “jar”. Presumably these containers functioned mostly for storage (Nieuwenhuyse 2007, 174–177). We have precious little contextual information on the usages of pottery storage containers in Late Neolithic villages. What information we have suggests that they may have stood outside (Bernbeck 1995; Campbell and Fletcher 2013, 46, Fig. 2.5). At sites with relatively well-preserved architecture, however, we find them indoors (Flannery 2002). At Tell Sabi Abyad a large Standard Ware storage container carrying appliqué (Nieuwenhuyse 2007, 59) was found embedded in a loam platform in a small room with limited access from outside; this vessel may have served the inhabitants of the building (Fig. 10.5, 2). At Shir, several large pottery containers were excavated from a huge multi-roomed storage building; associated with such storage vessels was applied semi-anthropomorphic imagery (Bartl *et al.* 2012, 178–180).

The location of applied Standard Ware containers in closed, shady interiors would only have minimized the already very low contrast between applied motif and background surface. This suggests that their visibility by larger numbers of people was not of concern to the Late Neolithic communities involved. Such containers may have been intended to be seen by small, restricted groups of people only, perhaps only those who used the buildings. Quite possibly, as apotropaic symbolism they may have been employed to avert demons or evil spirits, in which case only non-human, other-worldly visitors to the

buildings should see them. Alternatively, as far as the human occupants are concerned, these decorative styles may have been designed less to be seen but more to be *touched*. Indeed, caressing the vessel with bare hands may have been the only efficient way of deciphering the motif and “reading” it. While the proposition rests speculative, the possibility exists that the structural categorizations in later seventh millennium design grammars reflects the existence of different fields of phenomenological experience with regard to decorative styles.

Concluding remarks

In Near Eastern prehistoric archaeology we have become accustomed to look upon paint colours of prehistoric painted pottery and raw materials used for pigments mainly from a classificatory perspective. Red paints characterize ProtoHassuna pottery, for instance, while mat dark paint is instead typical for both Hassuna and Samarra painted pottery and dark, somewhat glossy paints are seen as characteristic for the Halaf painted vessels. The colours of Hassuna, Samarra and Halafian painted ceramics have become tools facilitating culture-historical identifications. Identifications made on the basis of pottery shape, decoration schemes and pigment colour then form the basis for far-reaching cultural reconstructions and comparative archaeologies. As far as paint colours and texture are involved, however, such classifications remain inadequate considering that only very few investigations have so far investigated the production of these paints on seventh to fifth millennium pottery (Gomez-Bach this vol.).

Recent work in Upper Mesopotamia has shown the inadequacies of the traditional culture-historical framework for the later Neolithic (Akkermans 1993). At Tell Sabi Abyad and other sites cultural continuity has been demonstrated leading from what is called the Pre-Halaf (or Proto-Hassuna) stage through a Transitional (Proto-Halaf) stage into the Early Halaf (Cruells this vol.). The ceramics changes that manifest themselves during this trajectory lead through a plethora of plain and decorated pottery styles that do not correspond at all to the Hassuna-Samarra-Halaf culture groups as traditionally understood. Instead of pigeon-holing individual types of painted pottery into the proper culture-historical slots we should reconsider the meanings of specific ceramic types and their properties.

Charvát (2005) has discussed the symbolic meanings of specific colours in painted ceramics. Rather, at least as far as the early stages of the Halaf period are concerned, I suggest that *contrast* between surface-motif colours carried meaning. In this paper I have looked at

painted pottery from the perspective of strategies adopted by potters to achieve contrast. I have left aside the specific symbolic meanings of the “signs” and symbols to highlight the physical and sensual aspects of the Late Neolithic systems of visual communication. In the later seventh to early sixth millennium in Upper Mesopotamia several such strategies were available. Each of them produced identifiable, readable motifs. It appears that they may not all have been equally successful, however, in distinguishing signs (motifs) from background noise (the vessel surface).

For the painted Standard Ware, plastered-and-painted Standard Ware, the Orange Fine Ware and the Fine Painted Ware, lightness values as measured on the Munsell chart are very similar for motifs and backgrounds (Fig. 10.6). As well, the hues of surface and motif are not very far apart. The bitumen-painted motifs on red-slipped Standard Ware already offer more contrast; moreover the great differences in hue between surface and motif in this case enhanced the visual identification of the motifs.

Superb visual contrasts are offered by the bitumen-painted Standard Ware and the incised-and-plastered, purposely reduced Grey-Black Ware. Yet these two strategies never became very popular, as reflected in the very low numbers of sherds recovered from the excavations. Possible reasons for the eventual rejection of these two strategies may be the extra labour investments needed and the susceptibility to erosion of these two post-firing treatments. Moreover, in the case of the bitumen-scratches on Standard Ware, the crudeness of the resulting designs would eventually have become severely anachronistic with the ever-more intricate design structures seen with the Standard Fine Ware.

The Standard Fine Ware, finally, shows a comparatively strong contrast between the dark painted motifs and the light-coloured surface background. Lightness-darkness contrast was not always as outspoken as that of the bitumen-painted Standard Ware or the incised-and-plastered Grey-Black Ware, but this category offered the advantages of production in large, increasing, numbers and a strong binding of the pigments. While paint colours were in fact variable and certainly not always dark, the lightness of the vessel surface enhanced the perception of contrast. The application of the painted motifs with brushes, moreover, was more conducive to stylistic innovation, allowing the creation of increasingly complex design configurations (Nieuwenhuys 2007). This contrast-rich ceramic category won the day, ousting all other painted pottery groups by the Halaf period (Fig. 10.7). The know-how and expertise for making dark-painted Fine

Ware in the Transitional and Early Halaf periods may have been especially valued, leading to processes of emulation (Nieuwenhuyse 2007; Forest 2013).

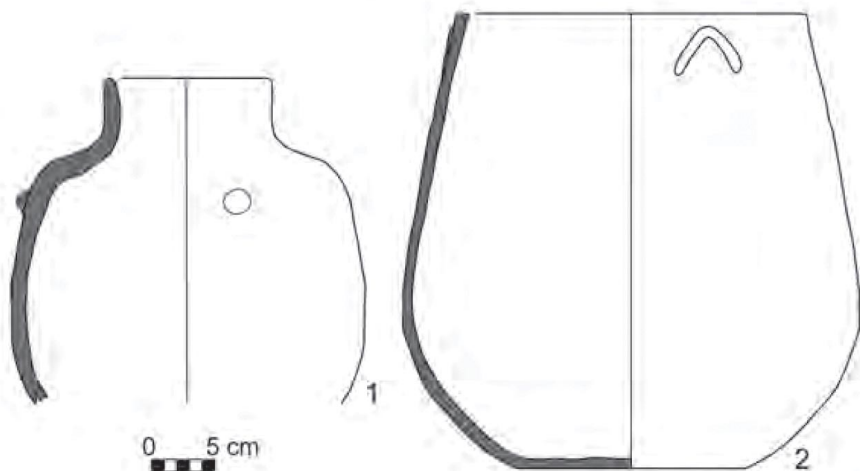


Figure 10.6. Tell Sabi Abyad. Late Neolithic motifs to be touched? Applied Standard Ware jars from the Pre-Halaf to Transitional periods (after Nieuwenhuyse 2007).

Several explanations can be brought forward to explain the emphasis on motif-background contrast in the later seventh millennium. Differences between low-contrast and high-contrast painted pottery styles, it might be proposed, may have had something to do with the expression of group identities and boundary maintenance, in the same vein as in past decades the spread of Halaf-style pottery has sometimes been interpreted in terms of prehistoric migrations. This view would be contradicted by the huge stylistic variability contained within the broad category of Standard Fine Ware and, subsequently, the Halaf Fine Ware. In the later seventh millennium, moreover, several decorative styles existed side by side; geographic distributions of these categories so far suggest no clear regional boundaries (Nieuwenhuyse 2007, 215–217, fig. 8.2.3).

Technological constraints may certainly have been involved in explaining the *absence* of dark paints in the Pre-Halaf stage: prior to the “invention” of Standard Fine Ware potters simply may not have had the technological knowledge to produce dark-on-light ceramics. However, while innovations in ceramic-technological skill leading to the emergence of dark-on-light Standard Fine Ware certainly represented a major turning point, it seems that times were ready for this “invention” to be made. This is suggested by the heterogeneity of the ceramic assemblages in this period, which suggests that potters

actively experimented with several new technologies and raw materials for increasing motif-surface contrast (Fig. 10.7). Over successive generations ceramic innovation progressively moved towards maximising design-surface contrast.

One crucial factor would have been the effects of superior contrast in facilitating the visual transmission of stylistic information. What really mattered may have been *visibility*. Significantly, the background to ceramic innovations during this period was a rapid rise of painted pottery as a proportion of the ceramic assemblage (Fig. 10.7). The shift from “plain” to “painted” pottery had the effect of producing much visual “noise”. Whereas in the early stages of this shift any single painted vessel would have stood out as something exceptional, by the Early Halaf period almost any other vessel was painted. Maximizing motif-background contrast was one strategy to make the designs painted on these vessels stand out. Maximizing contrast meant that individual pots could still be identified amidst many others, and their decoration deciphered. The emphasis on motif-background contrast, then, may have been an effective strategy for reducing “noise”.

Increasing motif-background contrast meant that vessels could be identified from larger distances and by more people at the same time. This facilitated their role in commensality events of increasing scope. It allowed more easy identification of motifs placed at less easily observed parts of the vessels; significantly, pottery vessels became increasingly often painted at the interior during the Early Halaf period. Ceramic-technological innovation played an important role in establishing the supra-regional networks of communication that we today call the Halaf culture. The adoption of dark-on-light painted serving vessels large and small connected small, dispersed Late Neolithic communities across Upper Mesopotamia. In its emphasis on dark-on-light designs Halaf painted pottery functioned, in a way, akin to today’s newspapers.

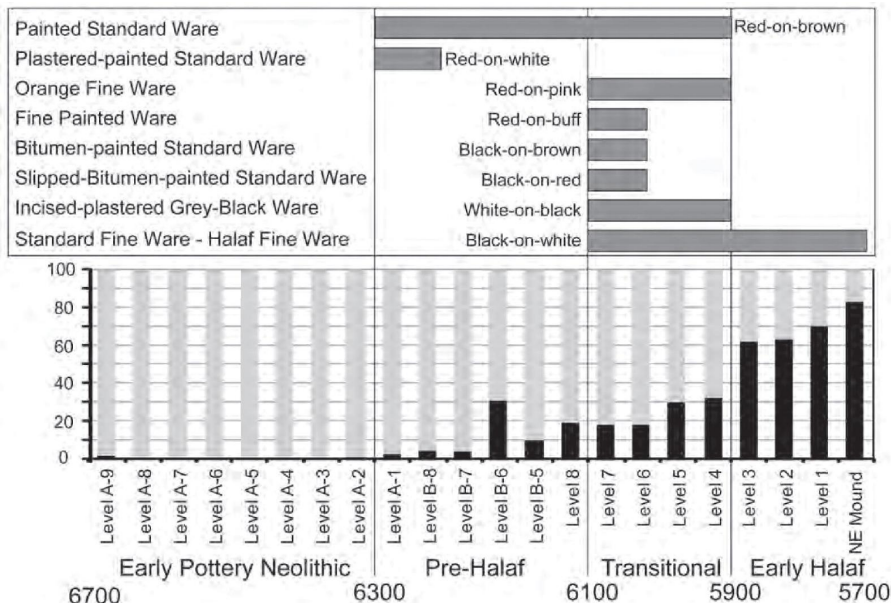


Figure 10.7. Tell Sabi Abyad. Chronological spread of alternative approaches to achieving surface-design contrast during the PreHalaf, Transitional and Early Halaf stages (upper) plotted against the rising proportion of painted ceramics (after Nieuwenhuyse 2007; in press).

Bibliography

- Akkermans, P. M. M. G. (ed.) (1989) *Excavations at Tell Sabi Abyad*, British Archaeological Report S468, Oxford, British Archaeological Reports.
- Akkermans, P. M. M. G. (1993) *Villages in the steppe – later Neolithic settlement and subsistence in the Balikh Valley, northern Syria*, International Monographs in Prehistory, Michigan, Ann Arbor.
- Akkermans, P. M. M. G. (ed.) (1996) *Tell Sabi Abyad: the Late Neolithic Settlement*, Leiden/Istanbul, Nederlands Historisch Archeologisch Instituut.
- Akkermans, P. M. M. G. and Schwartz, G. M. (2003) *The Archaeology of Syria*, Cambridge, Cambridge University Press.
- Bartl, K., Farzat, A. and al-Hafian, W. (2012) The Late Neolithic site of Shir. New results from 2012. *Zeitschrift für Orientarchäologie* 5, 168–187.
- Bernbeck, R. (1994) *Die Auflösung der häuslichen Produktionsweise*, Berlin, Dietrich Reimer.
- Bernbeck, R. (1995) Dörfliche Kulturen des keramischen Neolithikums in Nord und Mittelmessopotamien: vielfältig der Kooperationsformen. In K. Bartl, R. Bernbeck and M. Heinz (eds) *Zwischen Euphrat und Indus. Aktuelle Forschungsprobleme in der vorderasiatischen Archäologie*, 28–56. New York, Georg Olms.
- Bernbeck, R. (2008) Taming time and timing the tamed. In O. P. Nieuwenhuyse, P. M. M. G. Akkermans, W. Cruells and M. Molist (eds) *The Origins of the Halaf and the Rise of Styles (workshop organized at the 5th ICAANE Madrid)*, 709–729, Madrid, Universidad Autónoma de Madrid.
- Bernbeck, R. and Nieuwenhuyse, O. P. (2013) Established paradigms, current disputes and emerging themes: the state of research on the Late Neolithic in Upper Mesopotamia. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 17–37, Turnhout, Brepols.
- Campbell, S. and Fletcher, A. (2013) Scale and integration in northern Mesopotamia in the early 6th millennium cal. BCE. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 39–50, Turnhout, Brepols.

- Chapman, J. (2002) Colourful prehistories: the problem with the Berlin and Kay colour paradigm. In A. Jones and G. MacGregor (eds) *Colouring the Past. The Significance of Colour in Archaeological Research*, 45–72, Oxford, Berg.
- Charvát, P. (2005) *The Iconography of Pristine Statehood. Painted Pottery and Seal Impressions from Susa, Southwestern Iran*, Prague, Karolinum Press.
- Cleland, T. M. (1921) *A Practical Description of the Munsell Color System, with Suggestions for its Use*, Boston, Munsell Color Company.
- Croucher, K. (2013) Bodily identity: mortuary practices and bodily treatment in the Upper Mesopotamian later Neolithic. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 191–201, Turnhout, Brepols.
- Cruells, W. and Nieuwenhuys, O. P. (2005) The Proto-Halaf period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Davidson, T. (1977) *Regional Variation within the Halaf Culture*, Unpublished Ph.D. thesis, University of Edinburgh.
- Flannery, K. V. (2002) The origins of the village revisited: from nuclear to extended households. *American Antiquity* 67/3, 417–433.
- Forest, J.-D. (2013) The birth of a new culture: at the origins of the Halaf. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 101–105, Turnhout, Brepols.
- Garfinkel, Y. (1998) Dancing and the beginning of art scenes in the early village communities of the Near East and Southeast Europe. *Cambridge Archaeological Journal* 8/2, 207–237.
- Garfinkel, Y. (2003) *Dancing at the Dawn of Agriculture*, Austin, University of Texas Press.
- Gregorová, M., Mateiciucová, I. and Všianský, D. (2013) Rethinking the making of Late Neolithic pottery: an example from Tell Arbid Abyad (northeast Syria). In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 305–314, Turnhout, Brepols.
- Gut, R. (1995) *Das prähistorische Ninive. Zur relativen Chronologie der frühen Perioden Nordmesopotamiens*, Mainz, Phillip von Zabern.
- Hardin-Friedrich, M. (1970) Design structure and social interaction: archaeological implications of an ethnographic analysis. *American Antiquity* 35, 332–343.
- Hijara, I. (1978) Three new graves at Arpachiyah. *World Archaeology* 10, 125–128.
- Hole, F. (1984) Analysis of structure and design in prehistoric ceramics. *World Archaeology* 15/3, 326–347.
- Hole, F. (2013) Constrained innovation: Halafian ceramics. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 77–88, Turnhout, Brepols.
- Hunt, R. G. W. (1987) *The Reproduction of Colour in Photography, Printing and Television*, Tolworth, Fountain Press.
- Irving, A. and Heywood, C. (2005) The ceramics from the “Death Pit” at Domuztepe: conservation and analysis. *Anatolian Archaeology* 10, 6.
- Jones, A. and MacGregor, G. (2002) Introduction: Wonderful things – colour studies in archaeology from Munsell to materiality. In A. Jones and G. MacGregor (eds) *Colouring the Past. The Significance of Colour in Archaeological Research*, 1–22, Oxford, Berg.
- Le Mièrre, M. (2000) L’occupation proto-Hassuna du HautKhabur occidental d’après la céramique. In B. Lyonnet (ed.) *Prospection Archéologique Haut Khabur Occidental (Syrie du N.E.)*. Vol. I, 127–149, Beirut, Institut Français d’Archéologie du Proche-Orient.
- Le Mièrre, M. and Nieuwenhuys O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad. The Late Neolithic Settlement*, 119–284, Leiden/Istanbul, Nederlands Historisch Archeologisch Instituut.
- LeBlanc, S. A. and Watson, P. J. (1973) A comparative statistical analysis of painted pottery from seven Halafian sites. *Paléorient* 1, 117–133.
- Mallowan, M. E. L. and Cruikshank-Rose, J. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.
- Matson, F. R. (1983) The Banahilk potter. In L. S. Braidwood, R. J. Braidwood, B. Howe, C. Reed and P. J. Watson (eds) *Prehistoric Archaeology Along the Zagros Flanks*, 615–628, Chicago, Chicago University Press.

- Megens, L. and Nieuwenhuyse, O. P. (forthcoming) The decoration techniques of white-slipped-and-painted Standard Ware. In O. P. Nieuwenhuyse (ed.) *Relentlessly Plain. Seventh Millennium Ceramics at Tell Sabi Abyad*, Oxford, Oxbow Books.
- Mellaart, J. (1975) *The Neolithic of the Near East*, London, Thames and Hudson.
- Munsell, A. (1912) A pigment color system and its notation. *American Journal of Psychology* 23/2, 236–244.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur headwaters. In B. Lyonnet (ed.) *Prospection Archéologique Haut Khabur Occidental (Syrie du N.E.)*. Vol. I, 151–260, Beirut, Institut Français d'Archéologie du Proche-Orient.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery: the Rise of Late Neolithic Ceramic Styles on the Syrian and Northern Mesopotamian Plains*, Turnhout, Brepols.
- Nieuwenhuyse, O. P. (2009) The Late Neolithic ceramics from Shir. A first assessment. *Zeitschrift für Orient Archäologie* 2, 310–356.
- Nieuwenhuyse, O.P. (in press) *Relentlessly Plain. The Seventh-Millennium Ceramics from Tell Sabi Abyad*. Oxford: Oxbow.
- Nieuwenhuyse, O. P., Jacobs, L., Van As, B., Broekmans, T. and Adriaens, M. (2001) Making Samarra Fine Ware – technological observations on the ceramics from Tell Baghouz (Syria). *Paléorient* 27/1, 147–165.
- Nilhamn, B. and Koek, E. (2013) Early Pottery Neolithic White Ware from Tell Sabi Abyad. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 289– 296, Turnhout, Brepols.
- Noll, W. (1991) *Alte Keramike und ihre Pigmente. Studienzu Material und Technologie*, Stuttgart, Schweizerbart.
- Perkins, A. L. (1949) *The Comparative Archaeology of Early Mesopotamia*, Studies in Ancient Oriental Civilization 25. Chicago, Oriental Institute.
- Pollock, S. (2013) Defining a Halaf tradition: the construction and use of space. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans, and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 171–182, Turnhout, Brepols.
- Redman, C. L. (1978) *The Rise of Civilization. From Early Farmers to Urban Society in the Ancient Near East*. San Francisco, Freeman.
- Renfrew, C. (2004) Towards a theory of material engagement. In E. DeMarrais, C. Gosden, and C. Renfrew (eds) *Rethinking Materiality: the engagement of mind with the material world*, 23–31, Cambridge, McDonald Institute.
- Seeden, H. (1982) Ethnoarchaeological reconstruction of Halafian occupational units at Shams ed-Din Tannira. *Berytus* 30, 55–96.
- Tilley, C. (1991) *Material Culture and Text. The Art of Ambiguity*, London, Routledge.
- Van As, A. and Jacobs, L. (1989) Technological aspects of the prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Excavations at Tell Sabi Abyad. Prehistoric Investigations in the Balikh valley of northern Syria*, 215–232, British Archaeological Report S468, Oxford, British Archaeological Reports.
- Verhoeven, M. (1999) *An Ethnographical Ethnography of a Late Neolithic Community. Space, Place and Social Relations at Tell Sabi Abyad, Syria*, Leiden/Istanbul, Nederlands Historisch Archeologisch Instituut.
- Wengrow, D. (1998) “The changing face of clay”: continuity and change in the transition from village to urban life in the Near East. *Antiquity* 72, 783–795.

De l'art ou du cochon?

Béatrice Robert with Loïc Daverat

Abstract

The term “zoomorphic pottery” designates ceramic containers with animal shapes. Such vessels are found in Neolithic sites (e.g. Bouqras, Hacilar) as well as in the Halaf. The Halafian zoomorphic production is characterized by its technical quality, especially in the painted decorations related to the animal's shape; indeed this skill with precise designs is a hallmark of Halafian pottery as a whole. While zoomorphic vessels are rare, we will focus on this assemblage because of its technical quality, its scarcity within Halafian settlements, and its archaeological context. Thus, we will ask several questions about the use and the significance of these vessels within Halafian communities and culture. Considering examples found at the settlements of Tell Masaïkh, Tell Arpachiyah, Umm Qseir and one notable example from Yarim Tepe II, we will suggest the symbolic system of the object (*i.e.* painted designs and the use of raw materials) and we will reconsider its terminology as a “cultural object”. Finally, we will offer a new interpretation of the objects as a social representation.

Introduction

Among the wealth of French maxims, we have chosen one in particular, “du lard ou du cochon”, which we have deliberately modified (*De l'art ou du cochon*) and used as the title of this paper because of the images and meanings attached to it. The French expression means not knowing where to stand or having trouble understanding the truth of the matter (*lard* is pig fat), our title reflects the same frame of mind and this study reexamines and reinterprets a ceramic vessel shaped like a pig that carries painted geometric decoration. We wish to distinguish the true from the false and try to

discern the most distinctive functions and significances of archaeological objects. The principal focus of this paper is an object from Yarim Tepe II in Iraq, which is attributed to the Halafian period (Figs 11.1 and 11.2; Merpert and Munchaev 1993, 147, fig. 8.15).

Three points will be developed and discussed here. Firstly, we present the conclusions drawn from the author's PhD on technological data (technical analysis and "*chaîne opératoire*" observations) that demonstrate the evolution of Halafian society from Proto-Halaf to Late Halaf (Robert 2010, 369–371). These conclusions are based on comparisons between archaeological and archaeometrical data as well as a refined analysis of the ceramic "*chaîne opératoire*". The second part will present examples of zoomorphic pottery production attributed to the Neolithic/Early Chalcolithic periods. Finally, the last section will be dedicated to the pig-shaped vessel from Yarim Tepe II that shows quite unusual properties in comparison with the remainder of the extant zoomorphic corpus.

State of Halafian society from a technical point of view

A technological study carried out as part of the author's PhD thesis (Robert 2010) focused on the Proto-Halaf/Early Halaf assemblages from Tell Sabi Abyad and the Late Halaf/HUT assemblages from Tell Masaikh in Syria (Fig. 11.2). An image of the society emerged from a detailed study of the different phases of the *chaîne opératoire*. As Balfet (1991, 12) and Van der Leeuw (1984, 62) point out, the *chaîne opératoire* is a sequence of acts, gestures and instruments realized by a potter. This entails a specific organization that responds to the needs of a group or a single person (clay provenance/extraction, shaping, drying and firing). Pottery production is not only limited to creating containers, but to multiple objects that reflect several functions, numerous activities and human concerns. Our conclusions from Tell Sabi Abyad and Tell Masaikh (Robert 2010) about the Proto-Halaf/Early Halaf stage and the late Halaf stage are here summarized (Fig. 11.3).

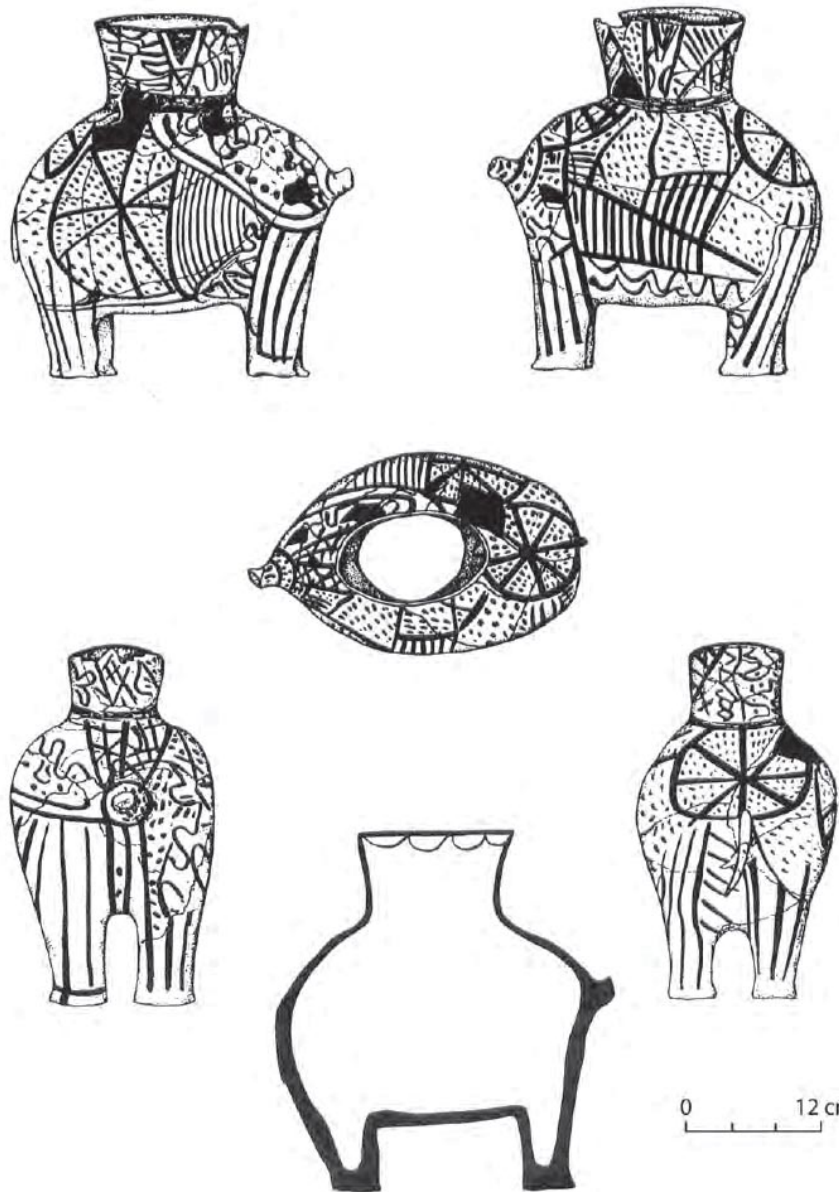


Figure 11.1. Zoomorphic pottery vessel in the shape of a pig from Yarim Tepe II (Iraq, Late Halaf) (after Merpert and Munchaev 1993, 147).

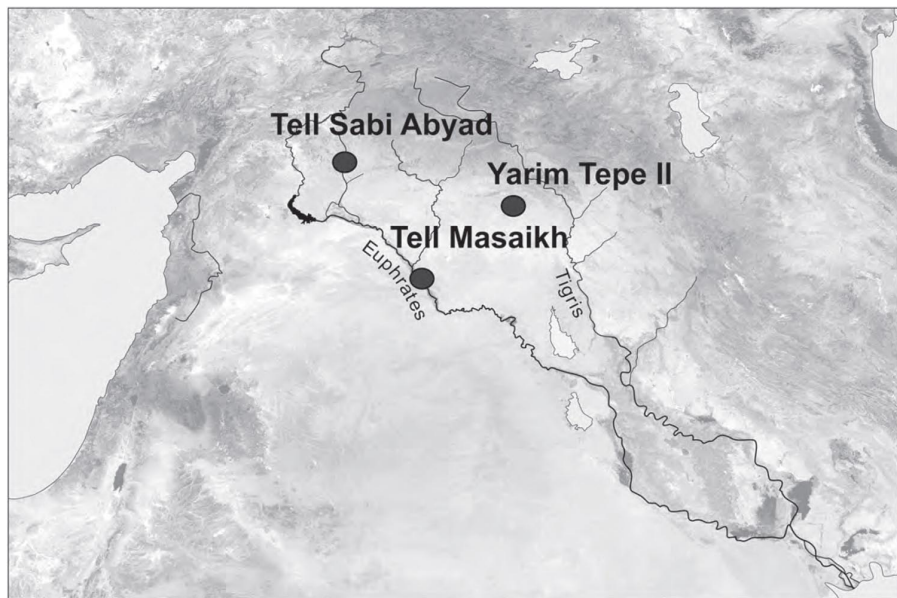


Figure 11.2. Map of the ancient Near East showing the locations of Tell Sabi Abyad, Yarim Tepe II and Tell Masaikh.

During the Proto-Halaf/Early Halaf phase, society is at an early stage of building its own identity, which asserts itself through a ceramic repertoire. The ceramics have a fine and compact texture and are composed of a calcareous clay fabric that is fired in an oxidizing atmosphere, which gives the container an orange tinge. The decorations on these vessels are both geometrical and monochromatic in accordance with the structure of the vessel. From its early phase it is evident that the Halafian society was structured along non-egalitarian lines as demonstrated in the material from Tell Sabi Abyad (Akkermans 1990; Duistermaat and Akkermans 1996, 30). While pottery production is a domestic production, it appears foremost as a way to establish social relationships, to create alliances, and to distinguish oneself. Even if the raw materials area community resource, the manufacturing of the pots responds to individual necessity and is consequently a product of identity. During this phase, the production is clearly domestic and develops within the household or even the larger village according to apprenticeship rules (*e.g.* oral transmission and emulation), as evidenced by the diversity of shapes and patterns.

During the later phases, many transformations observed in the pottery production reflect modifications in the structure of the Halafian society (Fig. 11.3). Thus, the mastery of the *chaîne opératoire*, the development of decorations (patterns, organization and colors), and the improvement of the iconographic repertoire indicate that the

object's aesthetic characteristics are now privileged. Not only do the Halafians feel the need to identify themselves through their production, but they also need to distinguish themselves from other communities by showing their mastery in the activity. The development of the painted production and the decorative repertoire shows that the Halafian groups integrated into their culture a system of competition and emulation; this system is clearly experienced through the diversity of shapes and patterns.

During this later stage, the pattern of production changes. It is no longer considered as a collective movement but becomes more individualized, since the sources of supply began to vary within the same site and within the same phase of activity. The production increases in quantity and becomes diversified, and thus indicates a new demand. Control is no longer exerted over the individual but spreads all the way to the producers and the group as a whole. Pottery production is no longer the result of a specific person but implies several people. Manufacturing pottery no longer responds only to household or village scale demand, but spreads over a group of communities. It becomes an indicator of the Halafians' expansion over a wide territory. The learning of new technical processes and the creation of specific production sites show that the Halafians have relationships with other populations with whom they now exchange skills and knowledge, as well as other objects. These encounters appear as opportunities to establish new social relationships through, for instance, the organization of weddings, feasts and communal dinners.

	Proto-Halaf / Early Halaf	Late Halaf	Halaf-Ubaid Transitional
Societal stage	Identity formation	Competitive system	Increased production
Implications	Individual control	Group control; craft producer control	Territoriality and wealth control
Manufacturing	Women	Women; help from additional persons	Women; help from additional persons; start of system modification
Apprenticeship	Transmission; impregnation	Transmission; impregnation	Transmission; impregnation
Diffusion	Exogamic system	Exogamic system; feasts	Exogamic system; feasts; exchange

Figure 11.3. Summary of Halafian social transformations and pottery production (after Robert 2010).

The development of pottery within the Halafian period reflected the social transformations experienced by this society. This transformation can be observed through the “classical” ceramic forms (e.g. bowls, plates), but also through exceptional products, which correspond to new needs and become necessities. These include:

- lamps discovered at Tell Masaikh (Robert 2010, vol. 2, pl. 4.1, figs 1 and 2), Tell Halaf (Oppenheim 1943, 96, Text Abb. 140–142), Tell Arpachiyah (Mallowan and Rose 1935, 73, fig. 41, 9–11), Chagar Bazar (Cruells 2006, pl. 3.2) and Umm Qseir (Miyake 1998, 72–73, fig. 33, 10–11);
- miniature vessels discovered at Banahilk (Watson 1983, fig. 20.3, 25–27, 32), Umm Qseir (Miyake 1998, 72–73; fig. 33, 12–13), Chagar Bazar (Mallowan 1936, fig. 20, 3, 15), Shams ed-Din Tannira (al-Radi and Seeden 1980; Gustavson-Gaube 1981, 175, 617–620) and Tell Amarna (Cruells *et al.* 2004, pl. 5.50);
- spoons as observed at Yarim Tepe III (Munchaev *et al.* 1984, 40, fig. 12);
- lids, of which several examples were found at Tell Masaikh during the 2005–2006 excavations;
- ceramic figurines as at Tell Arpachiyah (Mallowan and Rose 1935, fig. 46, 1 and 3), Yarim Tepe III (Merpert *et al.* 1977, 93, pl. xxii, 3–4), Tell Masaikh and Fıstıklı Höyük (Bernbeck and Pollock 2003, 59, fig. 37, d);
- objects put together or *objets bricolés* (*sensu* Lévi-Strauss 1962, 37) and anthropomorphic and zoomorphic pottery/vessels. We shall now address this final aspect of the Halafian production.

Zoomorphic vessels: a specific production

“Theriomorphic” or “zoomorphic” vessels combine two characteristics: a container used for pouring or to be filled, such as the *askos* type (Faivre 2006, 295), often distinguished by an opening at the top and hollow inside. Their other distinguishing mark is that it was shaped as an animal or human figurine. This category of objects is in not unique to late Halaf communities, since earlier examples made of terracotta or stone have been excavated from older Syrian and Anatolian settlements (Fig. 11.4). However, the Halafian innovation concerns the generalization of ceramic material and of painted designs which emphasize certain anatomic, or more precisely symbolic characters.

Two animal depictions (a hare and a hedgehog) (Fig. 11.4, a–b), that come from the archaeological site of Bouqras in Syria (PPNB) show all the characteristics of theriomorphic vessels (Akkermans and Schwartz 2003, 144, fig. 4.27). From the Hacilar site in Turkey, the sixth layer dating from the sixth millennium revealed several zoomorphic vessels. Although pieced together by Mellaart, who tended to exaggerate the depictions (Mellaart 1970; Faivre 2006, 307), it is still possible to recognize a boar, a gazelle (Mellaart 1961, 68) and a bovid’s hindquarters (Fig. 11.4, d–e).

Ceramic theriomorphic vessels are also found at a few Halafian sites. They are characterized by the excellent technical quality of the representation of animal shapes as well as the richly decorated aesthetic treatment. Two categories of Halafian theriomorphic vessels are known, although fragmentary evidence makes further distinction difficult.

The first category consists of round shapes with a wide opening on the dorsal part of the animal (Fig. 11.1). In the following pages we shall elaborate on the pig-shaped vessel from Yarim Tepe II, which belongs in this category. The pig is recognizable through the representation of its snout, four huge straight legs and a quite thin tail stuck to the back of the animal. A similar vessel was found at Arpachiyah (Amiet 1977, 349, no. 184) (Fig. 11.5).

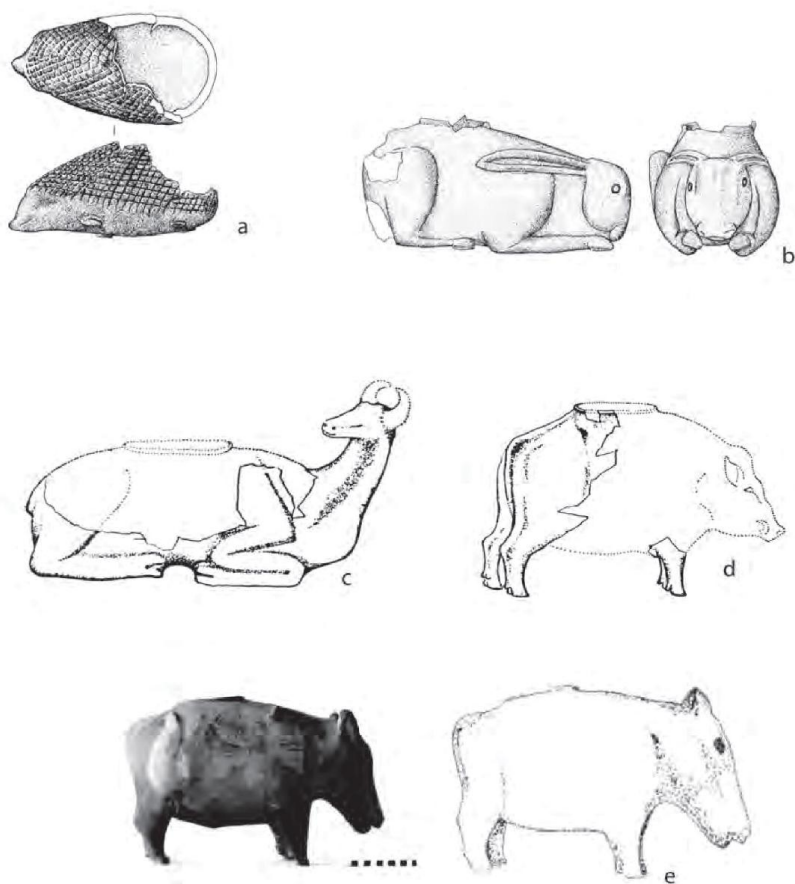


Figure 11.4. Late Neolithic theriomorphic vessels: a–b. Stone vessels from Bouqras (Syria, Late PPNB) showing a hedgehog and a hare (after Akkermans and Schwartz 2003, 144, fig. 4.27); c–e. pottery vessels from Hacilar (Turkey, level VI) showing a gazelle, a wild boar and a bovid (after Mellaart 1970, pl. lvi, 2 and fig. 57, 2; Mellaart 1961, 68; Faivre 2006, 307, fig. 5a and 5b) (images not to scale).

Although the Arpachiyah vessel was identified by the excavator as a porcupine, its rounded body shape with straight and slim legs, and its painted decoration using small lines to mark the separation between the little eyes of the head and the rest of the body, make it closer to the *Erinaceidae* family (hedgehog), a species common in the Near East.

The second category comprises more slender shapes, with an opening that replaces the animal's head (Fig. 11.6). The animals depicted have a similar shape: a thin body with an emphasized spinal column, a fine tail that falls onto the hind legs, and sometimes the start of a generally elongated neck. Several samples have been found on the sites of Umm Qseir (Miyake 1998, 69, no. 3) and Tell Masaikh in Syria as well as at Yarim Tepe II. Their morphology, their decoration (painted points) as well as the comparison with the animal figures painted on certain late Halafian dishes, allow us to think they are of the Felidae family. Although the reconstructed Umm Qseir vessel offers an opening at the back of the animal, this hypothesis is here rejected as no fragment confirms this detail and the elongated neck is similar to the one discovered in Tell Masaikh; this highly preserved fragment has an opening at the head of the animal.



Figure 11.5. A theriomorphic pottery vessel in the shape of a porcupine or hedgehog from Tell Arpachiyah (Iraq, Late Halaf) (after Amiet 1977, 349: 184).

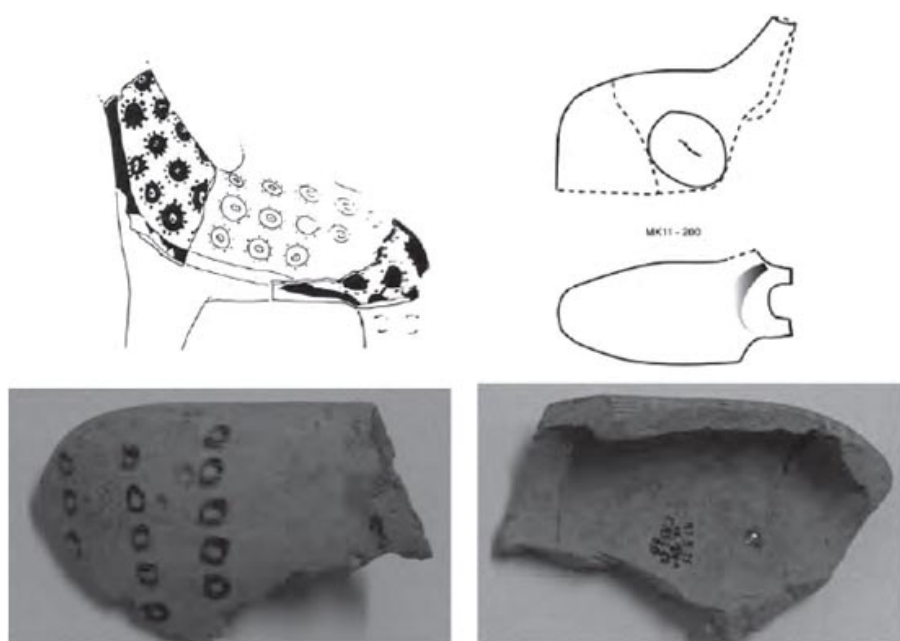


Figure 11.6. Theriomorphic pottery vessels with Felidae shapes. From Tell Umm Qseir (Syria, Middle Halaf) (after Miyake 1998, 69, fig. 32, 3); Tell Masaikh (Syria, Late Halaf) (drawing by Robert with permission of G. Masetti-Rouault, EPHE, Paris); Yarim Tepe II (Iraq, Late Halaf) (photo by Robert with permission of S. Amirov, Russian Academy of Science, Moscow).

Finally, other fragments deserve to be highlighted because they have animal shapes. Two fragments come from the site of Khirbet esh-Shenef in Syria (Akkermans and Wittman 1993, 158, Abb. 11d), and seem to belong to a single animal with a quite rounded shape. They consist of two legs and part of an animal's body. Another was found in Tell Halaf (Oppenheim 1943, 92, Text Abb. 136) and was interpreted as a bird. The fourth, discovered at the settlement of Chagar Bazar in Syria (Cruells 2006, 36), could correspond to a head-shaped jar lip, maybe that of a bovid.

Although we have few Halafian examples, we must emphasize here several points about the production of zoomorphic vessels. Zoomorphic ceramics are uncommon compared with the high frequency of ceramic vessels such as cups, vessels, or plates which implies that they are not planned for quotidian domestic use, but rather only for specific occasions. The shapes are varied since we observe vessels depicting Bovids, Felidae, and probably birds.

If the manufacturing of theriomorphic vessels follows the same *chaîne opératoire* as the broader ceramic corpus, then the shaping of the object must result from a higher degree of material mastery. Indeed, the purpose is to manufacture an object with an animal shape. As Lesure (2011, 49) wrote: "figurines are iconic objects", by

hollowing out the inside so that the object becomes a container. There is an attempt both to personalize the object (to give it an identity), and an equally complete depersonalization. This depersonalization of the object is done by the very act of hollowing it out, to prepare the object for its future function. In this case, the animal loses its animal status and creates a bond with a consumer who will drink from it or pour what is inside.

No two Halafian theriomorphic vessels are similar or identical to each other, whether from a single settlement, or several archaeological sites. A theriomorphic vessel cannot be considered as a simple dish associated with the daily activities of a family. It must be considered as an “exceptional” object of symbolic value, used only for specific occasions. The skill and the technique required for its production, its shape and the image associated with it, together with its functional qualities, places this vessel in the category of “ritual” object. This category is based on an occasional use within a group (family or community).

We can explore the meaning of these objects based on a typology that emphasizes the duality between rounded shapes with a wide opening on the back of the animal, and elongated forms with an opening on the head of the animal. I would like to emphasize several observations:

- The opening on the dorsal part of the animal and the rounded shape are opposed to the opening on the head, which is associated with the elongated shape;
- Rounded shapes correspond to domestic animals (*Suidae*, *Bovids* and *Erinaceidae*) familiar to the Halafian domestic landscape, whereas elongated shapes exclusively belong to wild fauna (e.g. leopards);
- Consumption of domestic animals like *Bovids* or *Suidae* (also *Erinaceidae*?) while wild animals are not included in the culinary repertoire. So, we can suggest that our pig is both “good for eating” and “good for thinking” following a remark of Lévi-Strauss (1989, 100);
- As Forest (1993) proposed, symbolically, the animals of rounded shapes like *Bovids* (also for *Suidae*?) are often associated with the masculine aspect while *Felidae* are related to the feminine aspect (Forest 1993, 30–33 and fig. 15).

More than duality, there is indeed a dichotomy between these two types of vessels in their role as vectors carrying symbolic meaning of ritual functions and to a gesture related to libation. The animal shape

ultimately determines the position of the opening and the function of the vessel. It becomes a simple liquid receptacle in the first case, and an instrument for pouring liquids in the second one. So, the object is simultaneously assigned with a symbolic value by the aesthetic apprehension of the shapes, and also by its use (both in the shaping of the object and its function). Based on the fact that these are natural containers designed for food consumption and that some of them are fattened (*engraissés*) from their real dimension (except the *Felidae*s examples), we can ask ourselves whether the zoomorphic pottery with a dorsal opening can be considered as containers?

As Schlanger (1991) noticed, technology is fundamentally social, since it is one of the expressions of the social. Considering the different dimensions (shape, assigned image, technique), I think that in this specific case, the object offers an image of the society and some of its activities. This characteristic is particularly well-illustrated by the theriomorphic pig-shaped vessel discovered in the Yarim Tepe II settlement (Merpert and Munchaev 1987).

The Yarim Tepe pig: an unusual occurrence

Before dealing specifically with the object, it is worth pointing out what is known about pigs as animals. As recalled by Breniquet (2006, 248), the pig has been the target of the first attempts of domestication since the tenth millennium in the Taurus Mountains. Apart from their ubiquity in Neolithic sites, pigs account for a significant proportion of the domesticated faunal evidence during the Halaf and Obeid periods as Breniquet (2006, 204) observed.

As an iconographic image, the pig is also attested from the Early Neolithic and thus belongs to the everyday life of the communities who depict it on various supports. By far, the best known example comes from a Çatal Höyük (wall?) painting, which depicts an animal with ambiguous features: snout, legs with hooves (like a pig rather than a bovine), horns (bovid-like), surrounded by representations looking like hunters. On the Hacilar IV settlement, there is a theriomorphic *Suidae*-shaped vessel; and in Fıstıklı Höyük (Bernbeck and Pollock 2003, 59: d), there is a figurine sherd depicting a pig (Fig. 11.7). These various examples confirm that this animal belongs to the everyday life of Neolithic communities, since it is both consumed and depicted. Once more, we can outline that the pig is *good to eat* and *good to think* (Lévi-Strauss 1989, 100).



Figure 11.7. Pig figurine from Fıstıklı Hüyük (Turkey, Early Halaf) (after Bernbeck and Pollock 2003, 59, fig. 37, d).

We must then ask ourselves about the interest shown to this animal. Two hypotheses can be advanced. One hypothesis relates to the breeding and consumption of the living animal. The other hypothesis is more symbolic and related to the animal's role within the community.

The pig has various identifying features. It is known for its burrowing snout, its fecundity, its strength (as a wild animal), its propensity to roll in the mud, its agitation (destruction of everything in its path). It is also an animal that cleans, that attacks rubbish, and it is compared to dogs (roaming free).

Now, we return to the theriomorphic vessel from Yarim Tepe II (Fig. 11.1), which was excavated from pit 28a (Merpert and Munchaev 1993, 145). This pit was in an area of the settlement where ceremonial evidence has been identified due to nearby inhumations. For this reason, and for its zoomorphic shape this vessel has been long been described as a ritual object. It is attributed to Early Halaf level in the Yarim Tepe II settlement. However, due to the phenomenon of expansion, it would be more suitable to place it in the late phase, since Early Halaf, as observed from Syrian settlements such as Tell Sabi Abyad, is not comparable. During the author's doctoral research, we demonstrated that Halaf pottery production arrives in Iraq in a perfectly mastered form, which is also clearly the case with the assemblage from Yarim Tepe II.

This object is interesting on two grounds: its shape and its decoration. In terms of the *chaîne opératoire*, it is a technically accomplished object, but its decoration, is rather unusual and this is the aspect which we investigate here. Several features of the object lead us to question the meaning of the decoration and the importance of this object within the Halafian community of Yarim Tepe II.

The shape of the vessel is unique. There is no difficulty in identifying a pig, recognizable through its rounded shape, its straight and stocky legs, and its snout. As Bibikova reported in her archaeozoological study (1981, 299–307), this animal is part of the local fauna on the Yarim Tepe. This vessel is not a common dish, since it shows the characteristics of both a figurine and a container;

however it would be difficult to use for actual drinking (pouring?). The vessel is hollowed out, but irregularly, so if you were to raise such a vessel to your lips, you might pour the liquid all over yourself. So this vessel was not used for this purpose, but rather for its contents to be poured on something or someone (why not?), and not to be personally ingested. So the associated act is a rather large and open gesture of liquid dispersion that could resemble the pouring of “libations”.

We now turn to its decorative aspects. In general, the Halafian painted decorations observed on ceramic vessels, as well as on zoomorphic or theriomorphic vessels correspond to a certain organization of space. The geometric motifs are often set in horizontal bands that border the lip and the bottom of the vessel, while vertical bands, or concentric motifs are used for floral motifs (e.g. at Tell Arpachiyah). For the anthropomorphic vessels, the decorative patterns recall the sexual characteristics of the woman (e.g. the pubic triangle observed on a vessel from Yarim Tepe II), or they represent bodily marks or jewels (e.g. vessels from Domuztepe). Although sometimes the reading of these patterns is ambiguous, some elements are clearly explicable, such as specific hide/fur patterns on numerous zoomorphic vessels. This is the case with the vessel found at Tell Arpachiyah, where the painted lines of the vessel remind us of the spines of a hedgehog or porcupine; the circular patterns painted on the Umm Qseir vessel recall the flecked fur of a Felidae. We can say that these artifacts depict *naturalistic* features, common to the whole Halafian figural repertoire. In other words, drawn or painted animals are easily recognizable, and we can associate them with well-known species (Robert 2010, 307–326). This is not the case with the decoration on the zoomorphic vessel from Yarim Tepe II. It is indeed geometrical and uses points and strokes, yet it lacks the exterior pattern one would connect with the anatomy of the animal: the fur! At first glance, the painted patterns form a rather shapeless imbroglio that is hard to decipher and seem to undermine its possible reading. However, due to the technical quality of the object, it is hard to believe that the decoration could be “*failed*” to such a point. It is unquestionable that this vessel (particularly its decoration) complies with the wish of the *artist/artisan* to offer a specific codified image of the object that only he/she masters, but which must be understood by those who see it.

We offer here a new interpretation of this vessel’s decoration. Considering the depicted image, the archaeological and zooarchaeological data, the environmental setting of Halafian communities, and modern ethnographic parallels, we suggest that the

decoration of the Yarim Tepe II pig (Fig. 11.1) represents a dead animal, and is directly related to consumption acts. In other words, it represents the quartering of the animal, its butchering/dismemberment, and even the “communal sharing” of the meat.

Although die-cut butchery practices seem to vary through the ages and from community to community, archaeology and history show that due to anatomical factors (morphology and skeletal articulation), die-cut principles remain universal, and that gestures are similar. As Méniel (2001, 19) wrote:

“Le mode opératoire suivi lors de la découpe d’un animal est le fruit d’un compromis entre contraintes anatomiques, possibilités techniques des instruments et choix culturels. Les premières confèrent aux schémas de découpe un fonds commun, mais aussi un certain nombre de degrés de liberté sur lesquels des choix vont pouvoir être opérés”.

Although cooking techniques vary according to cultural, dietary, and environmental factors, the method of butchering can often be highly comparable cross-culturally. Comparing our ceramic representation of a pig with the one present at any local butcher, we easily recognize the different stages of the die-cut and various meat quarters.

It seems that the two sides of the object coincide with the hypothesis that the left one depicts the main stages of the beast’s die-cut, and that the right one represents the edible meat quarters.

So, if we examine the left side, we can observe several diecut stages corresponding to the pig’s morphology (quartering) (Fig. 11.8/Colour Pl. 21):

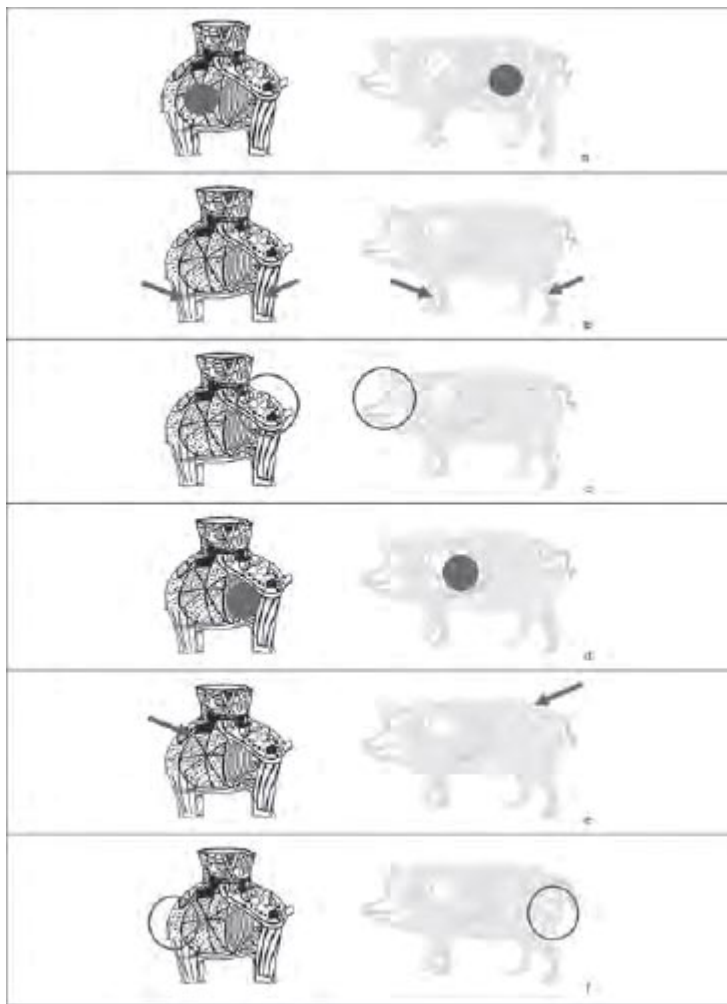


Figure 11.8. (Colour Pl. 21). The pig-shaped vessel Yarim Tepe II showing successive stages of die-cutting or quartering (after Merpert and Munchaev 1993, 147 and <http://www.archezoo.org>).

- opening through the belly (Fig. 11.8a);
- die-cut of the legs (Fig. 11.8b);
- die-cut of the head (Fig. 11.8c);
- cutting up the ribs (Fig. 11.8d);
- die-cut of the fine parts (for instance the fillet) (Fig. 11.8e);
- die-cut of the gammons (Fig. 11.8f).

The right side depicts a second stage of the die-cut, when meat quarters are ready to be consumed. This occurs only after the skinning and the gutting of the animal, which is represented by the hollowing out of the vessel itself before paint is applied (Fig. 11.9/Colour Pl. 22):

- die-cut of the hooves and the legs (shoulder cuts) (Fig. 11.9a);

- die-cut of the gammons (hams and hamstrings) (Fig. 11.9b);
- die-cut of the head and the ears (Fig. 11.9c);
- die-cut of the belly (Fig. 11.9d);
- die-cut of the spareribs (Fig. 11.9e);

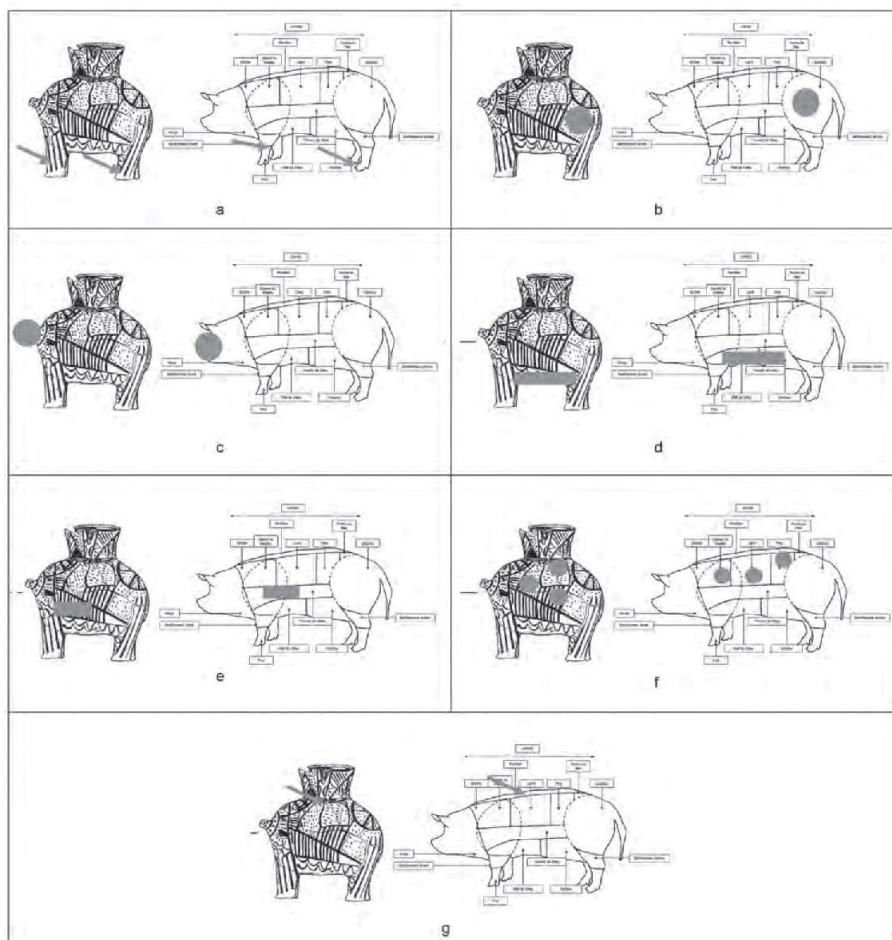


Figure 11.9. (Colour Pl. 22). The pig-shaped vessel Yarim Tepe II showing the second stage of die-cutting and quartering (after Merpert and Munchaev 1993, 147 and <http://chefsimon.com/produits/morceaux-porc.html>).

- die-cut of the loin (shoulder, rack, fillet, blade) (Fig. 11.9f);
- die-cut of the back fat (Fig. 11.9g).

Lastly, the painted part of the animal's hindquarters (back of the pottery) at the middle of the two profiles may be related to the sharing of meat, of cuts (remember that this part corresponds to fine cuts, as the blade).

Considering the object as a whole, it looks like what we may call “skinned” (or French *écorché*), which is an animal (more often human)

representation stripped of its skin and used as anatomical guide for Fine Arts and Medicine students (Rey-Debove and Rey 2008, 815). Although this terminology is late, it seems to apply to our pig as providing educational/apprenticeship value.

Through this reading of the object and its decoration, we can observe a progress in the perception of the Halafian society. Until now the Halafian identity was recognized through the technical quality of its objects, whereas for the first time, we can recognize an individual as a specialist of a defined activity, that is, butchery.

The importance of this object is outlined through several aspects. The vessel's shape and decoration show an animal from two angles: the living animal (certainly bred and visibly present within Halafian communities); the dead animal, used for consumption. Therefore, the object perfectly illustrates a structuralist world view and the concepts presented by Lévi-Strauss (Lévi-Strauss 1962; 1974). The two profiles represent both the way of cutting up the animal and its die-cut into meat quarters after evisceration. We have hints concerning the object's educational aspect, as well as an inventory of the eaten parts and the butchering activity itself. On this subject, we refer to the burial of pigs in the *Death pit* in the Domuztepe settlement. Among the identifiable parts from this feature were: cranial bones, mandibles, and teeth, from the head; ribs and vertebrae from the back; scapula, humerus, radius, ulna from the fore limbs; pelvis, femur, tibia and fibula from the hind limbs; carpals, tarsals, metapodials and phalanges from the feet (Whitcher Kanza and Campbell 2002, 2–13).

Conclusion

The analysis of this zoomorphic vessel reveals a new insight into Halafian society and its activities, namely the butchery and the consumption of meat. This is not surprising, since this animal was present in the immediate surroundings of the Halafians, graphically represented on several objects, and was consumed (zooarchaeological data).

We have to say that this vessel presenting a deconstructed decoration (its apparent lack of organization of the stripe-shaped patterns), clearly demonstrates a new level of structuring of society that is based on meat consumption and the sharing of meat (mainly Yarim Tepe II settlement). The deconstruction of the decoration even serves the structuralist thought. Looking at the shape of the object and within the context of its discovery, it is unlikely that it is made for a specific person or to be used by a single individual. Due to its shape, and its connection with apprenticeship the vessel is not made for

common use either. On the contrary, it must be related to some ritual occasion, as its archaeological vicinity to several human burials would suggest, such as a feast associated with a particular event.

Moreover, beyond meat consumption, the living or dead animal has great exchange value. In addition, we can recall Méniel's (2001, 19) sentences about animal death stage:

“dans l'Antiquité, ce geste ne peut être réalisé que dans des circonstances particulières, soit le sacrifice pour les mammifères domestiques, soit la chasse pour les sauvages. Il n'y a pas de mise à mort profane”. (Not mentioned in the French text).

As Joannès (2000, 342) said about later examples of die-cut of meat: “The principle of meat cutting is not a matter of taste but one of administration”. So we can ask ourselves if there is a sociology of meat consumption. The example of Yarim Tepe II provides an image of the structuring of the community and, beyond, of the Halafian society. The vessel from Yarim Tepe II could be compared to some paintings of the *Terres d'Arnhem* in Australia that depict (for apprenticeship) the die-cut and the sharing of the meat both for educational and illustrative purposes.

Descola, who has worked for a long time on representations of animals (Descola 1986; 2006, 167–182) emphasizes that some “carry many notions at once, and are also the expression of a mythical thought as well as a metaphoric code which helps to interpret an example of popular knowledge”. There is some of this metaphorical code in the zoomorphic vessel from Yarim Tepe II, especially in the way it reveals the structure of the Halafian society, where individualism becomes more pronounced. The identity of a group is no longer emphasized here and individual skills are put forward. Individual skills and *savoir-faire* are equivalent to increasing inequalities and to the emergence of more distinguishable elites.

Finally, we noticed that before being consumed, the Yarim Tepe II pig was both skinned and eviscerated. Such a depersonalization is observed during the hollowing out of the clay before firing and during the scooping out of the animal before eating. The act is accomplished at both the external and internal level. The depersonalization of the skinned pig aims at an obvious symbolic representation of specialized butchering knowledge. The depersonalization of the eviscerated pig makes the pig a functional object within a ritual framework. Although very difficult to grasp (even impossible), this process implies a symbolic character as well.

However, the pig still retains some attributes of a living animal. Its external shape shows integrity, as the representation is complete and anatomically connected despite the decorative cutting marks. Like the

anatomically skinned humans, this zoomorphic pig vessel is an idealized representation that is created by finding a balance between aesthetic and symbolic mutilation (skinning and gutting), and the characteristics of a living animal (integral anatomical connections, standing position). So, can we say in a sense that it is the pig itself that is represented, as much as the potter himself? To provide an answer to the title of this paper, it is really *Art and Pork* (apprenticeship transmission with fat streaky bacon figurations!), which must be retained in this zoomorphic pottery coming from Yarim Tepe II and not *Art or Pig*!

Acknowledgements

We would like to thank the organizing committee (Inna Mateiciucová, Olivier Nieuwenhuys, Walter Cruells) who agreed to include this paper in this collection and for organizing the Workshop *Painting Pots – Painting People, Investigating Decorated Ceramic from the Late Neolithic Near East*. We also express our thanks to Catherine Breniquet (Art History and Archaeology of the Ancient Worlds Professor, Blaise-Pascal University, Clermont-Ferrand II, UFR LLSH), Pauline Nuviala (PhD Student, Bourgogne University, ARTeHIS, UMR6298) and Yann Leclerc (Post-doctoral Student, Michel de Montaigne University, Bordeaux3, Ausonius, UMR5607).

Bibliography

- Akkermans, P. M. M. G. (1990) *Villages in the Steppe. Later Neolithic Settlement and Subsistence in the Balikh Valley, Northern Syria*, Unpublished PhD. thesis, University of Amsterdam.
- Akkermans, P. M. M. G. and Schwartz, G. (2003) *The Archaeology of Syria – From Complex Hunter-Gatherers to Early Urban Societies (ca. 16000–300 BC)*, Cambridge, Cambridge University Press.
- Akkermans, P. M. M. G. and Wittman, B. (1993) Khirbet esh-Shenef 1991. Eine späthalafzeitliche Siedlung im Balikhthal. *Mitteilungen der Deutschen Orient-Gesellschaft* 125, 143–166.
- al-Radi, S. and Seeden, H. (1980) The AUB rescue excavations at Shams ed-Din Tannira, *Berytus* 28, 88–126.
- Amiet, P. (1977) *L'Art antique du Moyen-Orient*, Collection “L’art et les grandes civilisations”, Paris, Editions D’art Lucien Mazenod.
- Balfet, H. (1991) Des chaînes opératoires, pour quoi faire? In H. Balfet (ed.) *Observer l’Action Technique*, 11–19, Paris, Editions du CNRS, Collection Matières et Manières.
- Bernbeck, R. and Pollock, S. (2003) The biography of an Early Halaf village: Fıstıklı Höyük 1999–2000. *Istanbuler Mitteilungen* 53, 9–77.
- Bibikova, V. I. (1981) Husbandry in northern Mesopotamia in the 5th millennium B.C. (as based on the data from the Halaf settlement Yarim Tepe II). In R. M. Munchaev and N. Y. Merpert (eds) *Earliest Agricultural Settlements of Northern Mesopotamia*, 299–307, Moscow, Nauka.
- Breniquet, C. (2006) Dans le mouton, tout est bon. Remarques sur les usages socio-économiques des animaux en Mésopotamie de la Préhistoire récente au III^e millénaire av. J.-C.. In B. Lion and C. Michel (eds) *De la domestication au tabou: Le cas des suidés dans le Proche-Orient ancien*, 247–254. Paris, Travaux de la Maison René-Ginouvès 1.

- Cruells, W. (2006) Les objets. In Ö. Tunca, A. M. Baghdo and W. Cruells (eds) *Chagar Bazar (Syrie) I. Les sondages préhistoriques (1999–2001)*, 81–92, Publications de la Mission archéologique de Liège, A. P. H. A. O., Louvain/Paris/Dudley (MA), Peeters.
- Cruells, W., Molist, M. and Tunca, Ö. (2004) Tell Amarna in the general framework of the Halaf Period. In Ö. Tunca, M. Molist and W. Cruells (eds) *Tell Amarna (Syrie) I. La période de Halaf*, 261–283, Publications de la Mission archéologique de l'Université de Liège en Syrie, Louvain/Paris/Dudley (MA), Peeters.
- Descola, P. (1986) *La nature domestique*, Paris, Maison des sciences de l'Homme.
- Descola, P. (2006) La fabrique des images. *Anthropologie et Sociétés* 30/3, 167–182.
- Duistermaat, K. and Akkermans, P. M. M. G. (1996) Of storage and nomads. The sealings from Late Neolithic Sabi Abyad, Syria. *Paléorient* 22/2, 17–44.
- Faivre, X. (2006) Les vases zoomorphes en forme de suidés. In B. Lion and C. Michel (eds) *De la domestication au tabou: Le cas des suidés dans le Proche-Orient ancien*, 293–309, Travaux de la Maison René-Ginouvès 1, Paris, Maison René-Ginouvès.
- Forest, J. D. (1993) Çatal Hüyük et son décor: pour le déchiffrement d'un code symbolique. *Anatolia Antiqua* 2, 1–42.
- Gustavson-Gaube, C. (1981) Shams ed-Din Tannira: Halafian pottery of Area A. *Berytus* 28, 9–182.
- Joannès, F. (2000) Le découpage de la viande en Mésopotamie. *Topoi Suppl.* 2, 333–345.
- Lesure, R. G. (2011) *Interpreting Ancient Figurines, Context, Comparison and Prehistoric Art*, Cambridge, Cambridge University Press.
- Lévi-Strauss, C. (1962) *La pensée sauvage*, Paris, Plon.
- Lévi-Strauss, C. (1974) *Anthropologie structurale*, Paris, Plon.
- Lévi-Strauss, C. (1989) *Des symboles et leur double*, Paris, Plon.
- Mallowan, M. E. L. (1936) The excavations at Tell Chagar Bazar, and an archaeological survey of the Habur region, 1934–5. *Iraq* 3, 1–87.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tell Arpachiyah. *Iraq* 2, 1–178.
- Mellaart, J. (1961) Excavations at Hacilar, fourth preliminary report. *Anatolian Studies* 11, 39–76.
- Mellaart, J. (1970) *Excavation at Hacilar 2*, Ankara, British Institute of Archaeology.
- Méniel, P. (2001) *Les Gaulois et les Animaux, Elevage, repas et sacrifice*, Paris, Editions Errance.
- Merpert, N. Y. and Munchaev, R. M. (1987) The earliest levels at Yarim Tepe I and Yarim Tepe II in northern Iraq. *Iraq* 49, 1–36.
- Merpert, N. Y. and Munchaev, R. M. (1993) Yarim Tepe II: the Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization. Soviet Excavations in Northern Iraq*, 128–162, Tucson, University of Arizona Press.
- Merpert, N. Y., Munchaev, R. M. and Bader, N. D. (1977) The investigation of Soviet Expedition in Iraq, 1974. *Sumer* 33, 65–104.
- Miyake, Y. (1998) Pottery. In A. Tsuneki and Y. Miyake (eds) *Excavations at Umm Qseir in Middle Khabur Valley, North Syria. Report of the 1996 Season*, 41–81, Al Shark 1, Tsukuba, University of Tsukuba.
- Munchaev, R. M., Merpert, N. Y. and Bader, N. O. (1984) Archaeological Studies in the Sinjar Valley, 1980. *Sumer* 43, 32–53.
- Oppenheim, M. von (1943) *Tell Halaf. Die Præhistorische Funde*, Berlin, De Gruyter.
- Rey-Debove, J. and Rey, A. (2008) *Le nouveau Petit Robert de la langue française*, Paris, Dictionnaires Le Robert.
- Robert, B. (2010) *Développement et disparition de la production céramique halafienne: implications techniques et sociales à partir d'études de cas*, Unpublished PhD thesis, Université Lumière Lyon 2.
- Schlanger, N. (1991) Le fait technique total. *Terrain* 16. Available online from <http://terrain.revues.org/document3003.html> (accessed 11.12.2014).
- van der Leeuw, S. E. (1984) Pottery manufacture: some complications for the study of trade. In P. M. Rice (ed.) *Pots and Potters. Current Approaches in Ceramic Archaeology*, 55–69, Monograph 24, Los Angeles, Institute of California.
- Watson, P. J. (1983) The soundings at Banahilk. In L. S. Braidwood, R. J. Braidwood, B. Howe, C. A. Reed and P. J. Watson (eds) *Prehistoric Archaeology along the Zagros Flanks*, 545–581, Oriental Institute Publications 105, Chicago, Oriental Institute.

Whitcher Kanza, S. and Campbell, S. (2002) Feasting with the dead? A ritual bone deposit at Domuztepe, south eastern Turkey (c. 5500 BC). In S. Jones O'Day, W. van Neer and E. Ervynck (eds) *Behaviour Behind Bones: the zooarchaeology of ritual, religion status and identity*, 2–13. *Proceedings of the 9th International Council for Archaeozoology Conference, Durham 2002*, Vol. 1. Oxford, Oxbow Books.

Electronic sources

<http://www.archeozoo.org> (accessed 26.03.2012).

<http://chefsimon.com/produits/morceaux-porc.html> (accessed 26.03.2012).

Painted pottery and visual representations at Tell Kurdu

Rana Özbal

Abstract

Although geometric motifs prevail amongst the pottery painting tradition of the Halaf Period, figural motifs depicting animals, people or even houses are also an integral part of the ceramic repertoire. Recently such figural or representational scenes have been interpreted as ways in which the inhabitants actively contributed to new narratives. Located in the Amuq Valley of southern Turkey, Tell Kurdu's pottery repertoire has only a limited range of geometric Halaf Period motifs in its Amuq C phase, dating to the sixth millennium BC. Figural motifs, on the other hand, seem to be lacking and instead burnishing remains the main form of decoration at the site. By exploring the range of painted motifs present and evaluating the absence of other design types at Tell Kurdu, this paper aims to address questions of identity and attempts assess how cultural styles, ideas and practices can either be amenable to modification and hybridization or resist change altogether.

Introduction

The Halaf Period of northern Mesopotamia dating to the sixth millennium cal BC is famous for its painted pottery with geometric motifs. Researchers have long recognized that these carefully painted geometric designs follow given rules of convention (Mallowan and Rose 1935; Dabbagh 1966; LeBlanc and Watson 1973; Davidson 1977). In addition to vertical and horizontal constellations of geometric shapes and cattle/mouflon designs, Halaf ceramic repertoires, though rare, also contain naturalistic representations of

birds, wild and domesticated quadrupeds (see Nieuwenhuyse 2007, fig. 2.2.4; Campbell 2010, 149; Erdalkiran this vol.), architectural structures (Campbell 2010, 150; Tekin 2011, 310) as well as human figurines (*e.g.*

Akkermans 1993; Hijjara 1997; Bernbeck and Pollock 2003, 43; Campbell and Carter 2006, fig. 3; Nieuwenhuyse 2007, 224; Campbell 2010, 149; Tekin 2011, 310). Researchers have recently suggested that such figurative or naturalistic motifs of animals, houses and people may have carried meanings different than the more typical repetitive geometric designs and, further, that they could have been used in special occasions and contexts (Nieuwenhuyse 2007; Campbell 2010).

This chapter provides a study of the painted pottery at Tell Kurdu, a site located in Turkey's Hatay province with sixth millennium cal BC (Amuq C) levels where painted ceramics resembling Halaf painted wares were found (Fig. 12.1).

Tell Kurdu's painted wares comprise a tiny percentage of the total ceramics when compared with sites considered to be typical of the Halaf Period. A brief introduction on the site and research is followed by a discussion of the painted wares at Tell Kurdu. Appearing in small numbers, Tell Kurdu's painted wares exhibit a narrow range of motifs. An evaluation of the restricted motif repertoire in a comparative sense allows an assessment of the nature and variability of geometric designs. Figurative representations of birds, people and animals, on the other hand, found at nearly all Halaf sites, albeit in small quantities, have not as yet been found at Tell Kurdu's sixth millennium BC Amuq C levels. If vessels with complex decorations and narrative scenes were indeed laden with symbolic meaning and used in culturally imbued occasions that were foreign to Tell Kurdu, their lack at the site should come as no surprise. Suggested here is the idea that the limited range of motifs and the absence of figurative scenes among the ceramics at Tell Kurdu results from an adherence to local traditions in a situation of cultural interaction.

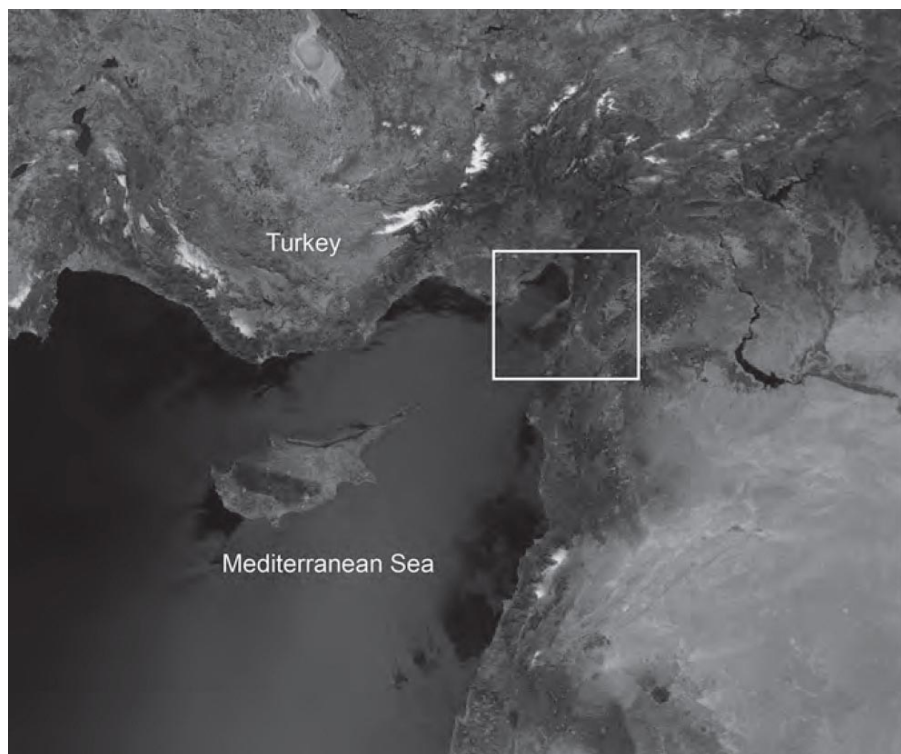


Figure 12.1. Map showing the location of the Amuq Valley of southern Turkey in the province of Hatay.

General interpretations and Halaf painted pottery

Already for a century now, archaeologists have been busy detailing the carefully executed motifs of Halaf ceramics (Garstang 1908; von Oppenheim 1931; 1943; Mallowan and Rose 1935; Perkins 1949). Mallowan and Rose identified a range of typical geometric and stylized bucrania designs and contributed to synthesizing the Halaf Period as a cohesive archaeological phase which was later encapsulated as the “Halaf Cultural Horizon” with the help of Anne Perkins, among others. In the 1970s and 80s, researchers such as Davidson (1977) and LeBlanc and Watson (1973) further identified chronological divisions and the degree of relatedness of different settlement groups through chemical characterization studies, statistical formulations and coefficients of similarity.

Naturalistic motifs of trees, foliage, animals, people, birds and even houses typically comprising around one or two percent of the total assemblage were often published in reports of the earliest Halaf excavations but were not discussed in detail as they fit neither the Cultural Horizon models of the Cultural Historical approaches of the 1940s nor the statistical formulations of the Processualists of the

1970s. Nonetheless, remained a constant element in reports perhaps in an overrepresented manner because of their unusualness and the insights they potential could provide on animals and society of the time.

Only in the last decade have researchers begun in earnest to think about the meanings of Halaf motifs and figurative designs (Nieuwenhuyse 2007; Campbell 2010). Clear insight into their emic significance is improbable but in some instances, especially in conjunction with contextual data, we can read which audiences a given visual message on a painted Halafian vessel was intended for and assess the circumstances of execution. Researchers have argued that figurative motifs could have conveyed social narratives to reinforce or modify established social conventions.

Background on Tell Kurdu's sixth millennium BC painted ceramics

The site of Tell Kurdu is located in the Amuq Valley of Turkey (Fig. 12.2). Excavated by the Braidwoods in the 1930s and then by Yener in the 1990s, the site approached 15 ha in the sixth millennium BC and would have been a domineering settlement in the valley in its day (Braidwood and Braidwood 1960; Yener *et al.* 2000a; 2000b). Tell Kurdu continued to be occupied in the fifth millennium BC where we find Ubaid influences in its pottery assemblage and in other aspects of its material culture. The data discussed in this chapter comes from the 2001 season and dates to the sixth millennium BC (Özbal *et al.* 2004; Özbal 2006).

As a substantial settlement, and presumably the central site in the valley, Tell Kurdu would have been a pivotal hub where cross-cultural contacts and exchanges could have taken place in the sixth millennium BC. Indeed, Tell Kurdu appears to combine cultural, architectural and artifactual elements of east Mediterranean, north Levantine, southeast Anatolian and north Mesopotamian styles in a distinct way and was far from a typical Halafian site. Although it is difficult or nearly impossible to describe what a typical Halaf site actually is, it is safe to say that most are small and short lived settlements which often tend to have evidence for round houses. At Tell Kurdu however, the architecture, for one thing, where small agglutinated houses are aligned along narrow streets and alleys, presents an alternative picture (Fig. 12.3). The pottery, moreover, follows a long tradition of burnishing, often termed Dark Faced Burnished Ware, which has been typical of this region since the earliest ceramic Neolithic (Fig.12.4, Braidwood and Braidwood 1960;

see also Tsuneki and Miyake 1996) although by the sixth millennium Dark Faced “Unburnished” variants of most shapes including the so-called splayed vessel rims dominate the assemblage (Fig. 12.5).

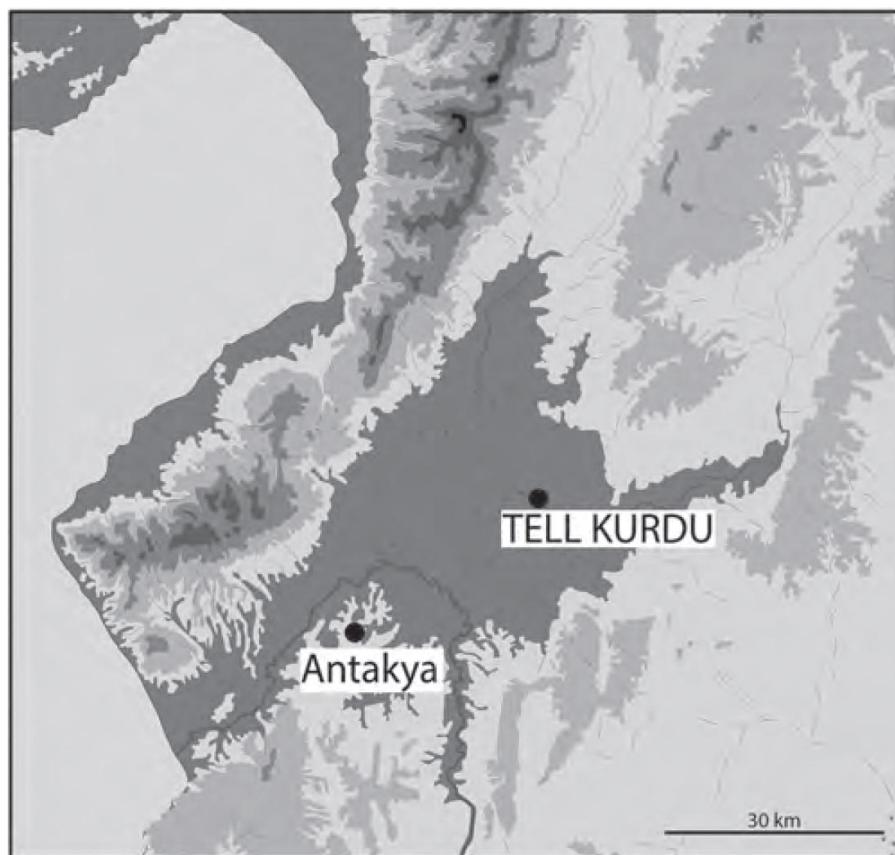


Figure 12.2. Map indicating the location of Tell Kurdu in the Amuq Valley and the modern city of Antakya.

Yet, the site does have a small but notable contingent of painted ceramics in a Halaf style (Fig. 12.6/Colour Pl. 23) and even some forms that are typically Levantine in their shape and fabric (Özbal and Gerritsen 2013), attesting to the inter-cultural nature of the settlement. Painting was rare in the Amuq Valley before the sixth millennium BC (although not completely absent, see Braidwood and Braidwood 1960, 80) and it would be safe to say its general appearance in the early sixth millennium coincides with the arrival of Halaf influences in this region. The so-called brush-applied Brittle Painted Wares of the seventh millennium BC are an exception but, as suggested by Matson, they were largely imported (Braidwood and Braidwood 1960, 80).

Overall, there is much variability in application style among the

painted wares of the Tell Kurdu assemblage. Some examples appear to be painted in a much finer and more careful manner, although with others the paint is applied in a hurried fashion with much coarser brushes. Similarly, the paste of the ware also differs significantly. Some thin-walled fine ware examples often just a few mm in thickness are produced with fine often white creamy pastes while the majority seems to have thicker walls and contain notable inclusions of calcite or grit temper. The Braidwoods relied roughly on this twofold division and distinguished between these two types, categorizing the former as Halaf Painted Wares and the latter as Local Painted variants (Braidwood and Braidwood 1960, 145–148). In essence, however, this distinction is more theoretical than practical because it relies on subjective categorizations (see Özbal and Gerritsen 2013). Nonetheless, there is undoubtedly a continuum of variability in design application and ware coarseness.

More significantly for this chapter is the fact that even when all the painted pottery at Tell Kurdu, including both the finer and coarser painted wares, is added, the percentage of painted wares altogether is still very low. In the Amuq C phase, Halaf-influenced painted pottery comprises only about 5–6% of the total assemblage at Tell Kurdu (by count). To be more precise, of the 22,000 processed sherds at the site, about 1250 are painted. In the assemblage even when only rims, which tend more often to be painted, are considered the overall quantity of painting at 15% still remains considerably lower than most Halaf Period sites, where painting typically comprises up to three-quarters of the rims and around 40% of the bulk assemblage (Campbell 1992, 61; see for example: Davidson 1977, 108; Watson and LeBlanc 1990, 68; Merpert and Munchaev 1993, 152; Le Mièrre and Nieuwenhuyse 1996, 176; Hijjara 1997, 68; Bernbeck *et al.* 1999, 129; Campbell *et al.* 1999, fig. 13; Pollock *et al.* 2001, fig. 15; Tekin 2011, 310).

One explanation for the general disinterest in painting pottery at Tell Kurdu could be that much of the decoration efforts at the site in the sixth millennium BC were going towards burnishing ceramics (Braidwood and Braidwood 1960; Diebold 2000; 2004). Regardless whether calculated by weight, count or rim percentage, the values for painted pottery suggested by our findings are also much lower than those noted for the Tell Kurdu Amuq C assemblage by Braidwood and Braidwood where the Local and Halaf painted wares together were reported to comprise 35–45% of the assemblage (1960, 143–146). An intuitive biasing towards keeping and recording painted wares may account for part of this over representation in ceramics ratios.

Even though painted wares from the Amuq C Phase comprise only a small percent of the assemblage, as this ware group is typically the most intensively analyzed ceramic category among Halaf or Halaf related sites, many researchers have created compendia of design configurations allowing for motif based stylistic cross-site comparison (Mallowan and Rose 1935; Perkins 1949; LeBlanc and Watson 1973; Davidson 1977; Campbell 1992; Nieuwenhuyse 2007; Fletcher 2008). Consequently, several researchers, starting with the Braidwoods, have been able to place the Tell Kurdu motifs into a larger regional context (Braidwood and Braidwood 1960; Davidson 1977; Akkermans 1993; Diebold 2000; 2004).



Figure 12.3. Plan of the excavated trenches shows an array of small houses and courtyards aligned along streets dating to the beginning of the sixth millennium BC.

Such inter-regional comparisons have resulted in the realization that the painted pottery assemblage at Tell Kurdu is more restricted in terms of its motifs (Braidwood and Braidwood 1960, 148; Davidson 1977, 269–272; see also Akkermans 1993, 132). In fact, this observation is evident even upon first inspection. What most notably is lacking from the Tell Kurdu painted pottery assemblage are all variants of representational motifs of birds, people, animals (with the exception of bucrania) or houses, geometric dancing lady motifs, designs in negative as well as patterns like stylized flower rosettes,

meander motifs or the butterfly designs as well as stem and leaf representations. When discussing the ceramics from Tell Kurdu Davidson, for example, states:



Figure 12.4. An example of a large Dark Faced Burnished Ware sherd.

“[t]he designs from [the Amuq C] phase are for the most part those known from developed middle and late phase Halaf contexts, with the closest parallels being to the Euphrates region Halaf sites. The range of designs is however much more restricted than at these ‘true’ Halaf sites” (Davidson 1977, 269 emphasis original).

Based on a basic recording of motif types of close to 200 painted diagnostic sherds from reliable contexts, from both vessel interior and exteriors, it is safe to say that simple horizontal bands are the most typical design (Fig. 12.7, 3, 4, 7, 12 and Fig. 12.8, 1, 3, 9, 10, 11 12). Vessel interiors seem to be painted especially when shapes are open such as in deep bowls, collared bowls, flaring rimmed bowls (Fig. 12.7, 3, 4, 7, 12 13). In closed shapes, such as tall necked jars, painting, quite logically, is restricted to vessel exteriors. More than half of all recorded painted vessels have some decoration on the vessel interior (as well as the exterior) and around 5% lack exterior paint altogether. Quite notably, a remarkably narrow range of motifs are used to decorate vessel interiors. Horizontal bands, for example, often represented as a single, double or triple band of differing thicknesses around the inner upper lip are most typical and comprise close to half

of the designs (examples: Fig. 12.7, 6, 9). Moreover, more than 40% of the motifs painted on the vessel interior are various constellations of five motifs, four of which follow the same basic principles. Most are single, double or multiple undulating lines, in the latter case usually not running parallel to one another and sometimes interrupted by short groupings of metopes (Fig. 12.7, 12, 13 and Fig. 12.8, 4). This design type is especially typical of rimmed bowls where the interior collar is painted with undulating lines (Fig. 12.7, 12, 13). The fifth-most common motif applied to vessel interiors is the doily-looking edge ornamentation comprised of short pending wavy strokes, in essence a variant of the single undulating line (Özbal *et. al.* 2004, fig. 9.6). At least 12 different motif types including diagonal crosshatching, chevrons, crosshatched lozenges and rectangles as well as diagonal lines and strokes comprise the remaining 12% of the designs used in vessel interiors, most occurring in singular cases (Fig. 12.7, 4).

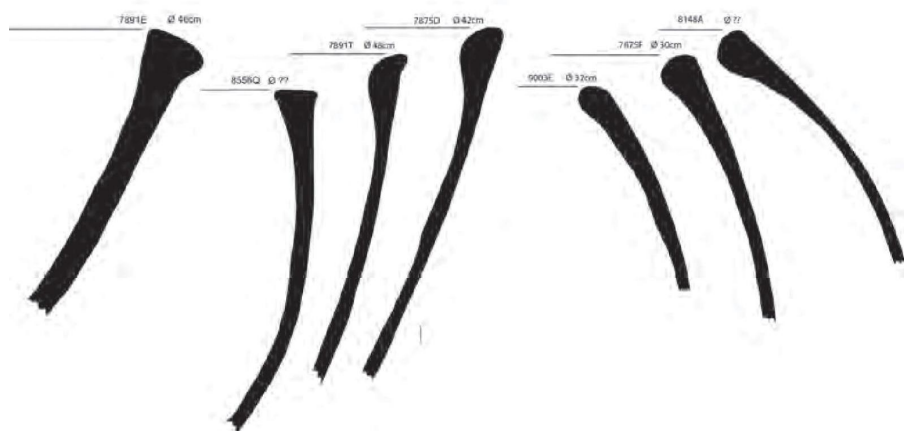


Figure 12.5. Examples of Dark Faced Unburnished Ware vessel profiles and in particular the splayed vessel rims.



Figure 12.6. (Colour Pl. 23). A group shot of selected Amuq C period painted vessels from Tell Kurdu.

While vessel exteriors show more variability overall when compared with vessel interiors, around 45% of the assemblage is decorated with a plain horizontal band (Fig. 12.8, 1, 3, 9–12). A single simple band of varying thickness comprises most cases, but double or triple bands are attested as well (Fig. 12.8, 1, 3, 9). The remaining design configurations include motifs typical of the Halaf Period like chevrons (Figs 12.7, 1 and 12.8, 7), crow's feet patterns (Fig. 12.7, 6, 11), diagonal crosshatching sometimes contained in lozenges or rectangles (Figs 12.7, 5 and 12.8, 2, 4) zigzags arranged in various constellations (Fig. 12.8, 2), recumbent V's (Fig. 12.7, 10) and diagonal lines (Fig. 12.7, 4). Though we find more variability on vessel exteriors than interiors, a total of seven exterior motifs comprise nearly 20% of the decoration configurations. Many of the designs are, nonetheless, represented by singular examples, but the motifs use similar renderings of the same concept patterns.

The obvious question of how painted wares were distributed across the settlement has been addressed elsewhere (see Özbal and Gerritsen 2013). In brief, painted wares at first glance are found quite evenly across different contexts and areas of the site. A standard small

percentage of Halaf-like painted sherds averaging around 15% (when rims are considered) were discovered in all structures and streets and all activity areas whether an interior floor context or a midden deposit. However, at least two contexts seemed to stand out: 1) a cache of whole vessels placed together with a complete grinding stone in an abandoned oven where up to 31% of the rims had been painted and 2) a pit placed in the floor of a room where 36% of the rims sherds was painted (Özbal and Gerritsen 2013). Most of the painted vessels, especially in the latter location, were bowls with flared collars, with bucrania motifs and many other designs rare at Tell Kurdu. Since most painted vessels are open shapes, more suited as serving vessels, many may have been associated with dining or even feasting (Nieuwenhuysen 2007). The discovery of the abovementioned bowl concentrations may suggest that dining was one of the activities that painted vessels at Tell Kurdu were used for, even though painted pottery was used and discarded in all contexts (Özbal and Gerritsen 2013).

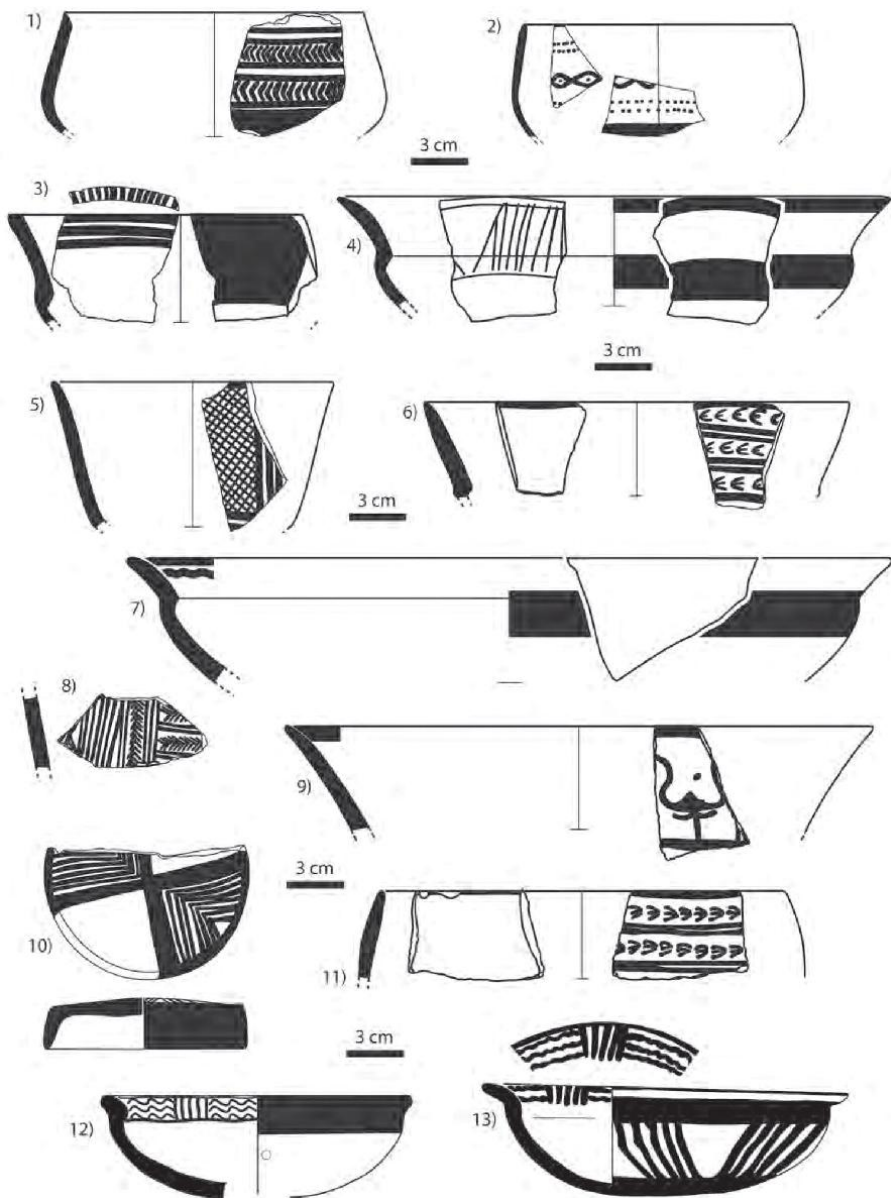


Figure 12.7. A selection of open vessels with painted motifs from Tell Kurdu's Amuq C level.

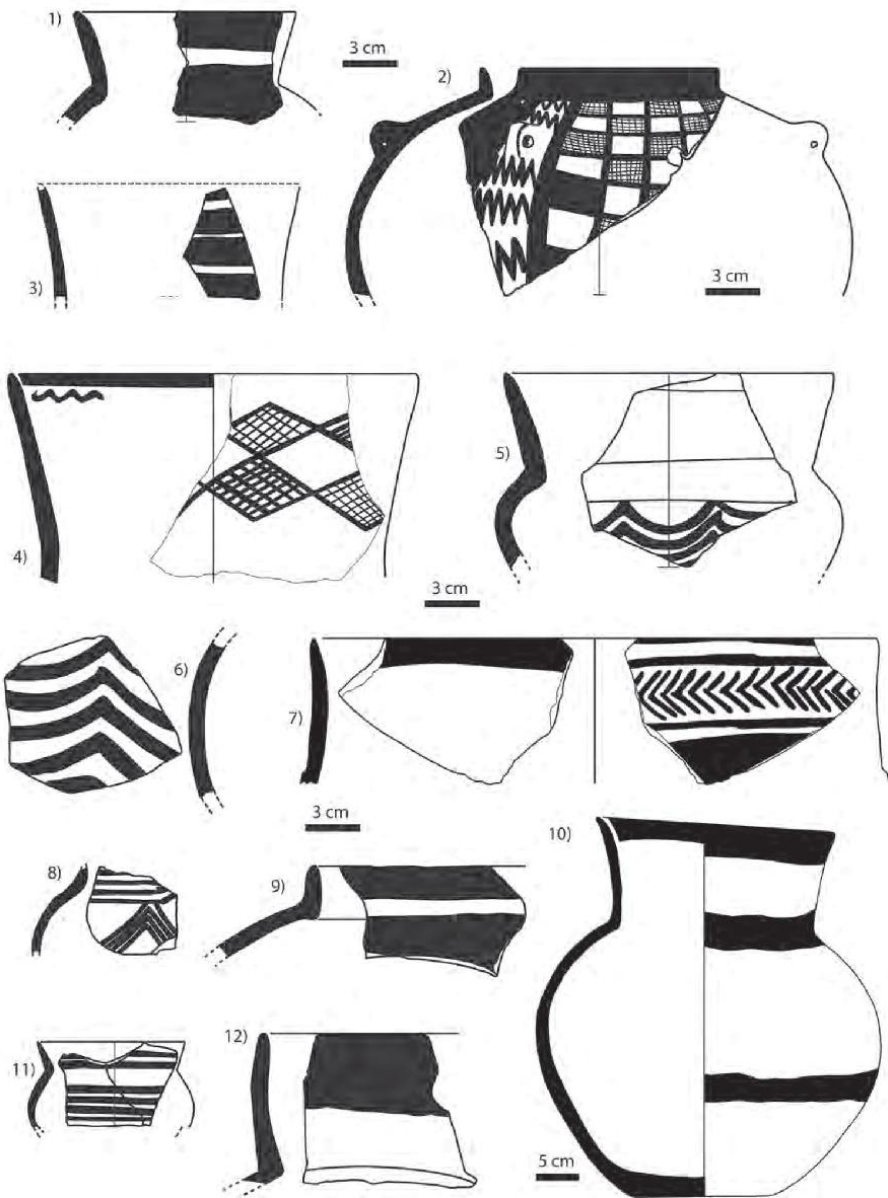


Figure 12.8. A selection of closed vessels with painted motifs from Tell Kurdu's Amuq C level.

In sum, Tell Kurdu's painted pottery, which can either be painted with care and exactitude or be completed in an asymmetrical and even somewhat sloppy manner, demonstrates Halafian-type motifs in a far more restricted range than at sites further east. This may of course result from the fact that painted ceramics are much less frequent. Nonetheless, when this general lack of interest in painting ceramics is combined with the absence of distinctively north Mesopotamian sixth millennium architectural forms, the findings from

Tell Kurdu suggest that the trends in pottery and house styles in the Amuq may have had a different character. Instead, the pottery at the site continued to be burnished, as it had been for millennia and the architecture, with its agglutinate rectangular structures, had closer affinities with Anatolia.

Naturalistic motifs at Tell Kurdu

As stated above, naturalistic motifs of animals, plants, people, buildings or other recognizable figurative designs, which are known features of Halaf Period pottery (Nieuwenhuys 2007; Campbell 2010; Tekin 2011 and this vol.; Erdalkıran this vol.), are not represented in the Tell Kurdu assemblage. Some motifs are easily identifiable as naturalistic because they show actual scenes of life with recognizable figures. However, others include stylized and repetitive motifs of bucrania, foliage including flower rosettes or stylized trees or “dancing ladies” often organized in repetitive bands and are more difficult to call purely naturalistic. While the excavations of the sixth millennium levels at Tell Kurdu did yield roughly around or just over ten sherds with bucrania motifs (e.g. [Fig. 12.7, 9](#)) and at least one with a possible representation of trees ([Fig. 12.7, 8](#)), no other clearly naturalistic design was discovered among the 1250 processed painted sherds. Trees and bulls may appear naturalistic at a first glance but the way in which they often appear bounded in vertical and horizontal bands in a repetitive manner may deem them stylistic in nature.

The lack of other clear naturalistic motifs among the Tell Kurdu painted pottery assemblage may depend on two possible explanations: 1) that the painted sherd sample size is too small, resulting in too narrow a pool for figurative designs or, 2) that naturalistic motifs may have been made for specific occasions which were not of consequence to the inhabitants of Tell Kurdu. The first issue on sample size undoubtedly contributes to the problem. However, 1% of 1250 painted fragments would equal about a dozen sherds. In addition, such figurative designs with their presumably eye-catching nature were recorded neither in the unprocessed (but washed and inspected) ceramics from unreliable contexts (topsoil, *etc.*) from Tell Kurdu’s 1998–2001 seasons, nor, to the extent that it has been published, among the ceramic bulk analyzed by Braidwood and Braidwood following their 1938 season at the site (1960). Consequently, the lack of motifs representing animals, plants, people or architecture and other unusual scenes among the pottery assemblage at Tell Kurdu remains striking and begs an explanation. Could this absence inform

us about the meaning that such pottery motifs may have carried?

Researchers have suggested naturalistic images may have had the potential to create new social narratives (Nieuwenhuyse 2007; Campbell 2010). Figurative symbols have been interpreted as having powers beyond the ordinary. At Domuztepe in the Maraş Plain, for example, they were apparently found primarily in the ditch, which functioned as a boundary between sub-communities and may have hence been charged with meaning. Campbell suggests that pottery with representational images were intentionally discarded here because they were considered powerful or even dangerous (Campbell 2010, 150). This suggests that if used inappropriately such vessels may have been able to transform the everyday and to disturb existing cultural orders.

Assuming that vessels with naturalistic motifs, given their connotations, were used in ritually imbued occasions at various Halaf sites, their lack at Tell Kurdu could be quite significant. This suggests that such symbolic or ritual events may not have been part of the repertoire of activities that painted ceramics were used for at Tell Kurdu. The sixth millennium deposits were excavated over an area of 800 m² which is an adequately large exposure. Unless large caches of ceramics decorated with narrative motifs do exist at Tell Kurdu but are located in contexts yet to be excavated, one could argue that the inhabitants here seem not to have participated in Halafian ritual traditions that involved such ceramics. Overall, the painted pottery data from Tell Kurdu suggests that the inhabitants were probably selectively appropriating aspects like especially geometric motif elements and ignoring others, with presumably narrative scenes, perhaps given their associated ritual connotations (see Dietler 2010). In other words, if vessels with such narrative motifs and figurative imagery were used for specific occasions at Halaf Period sites to the east, their lack here could mean that these practices were not performed at Tell Kurdu.

Further, we may say that even when conventions like pottery-painting that were not initially practiced became adopted, they were transformed and placed into local existing frameworks. The term “Local Painted” as used by the Braidwoods, though problematic, does in fact suggest that some of the motifs at Tell Kurdu stood out when compared with other contemporaneous painted pottery motifs from the east. In fact, Braidwood and Braidwood state that the wares “cannot be called Halafian with all the implications which that word has for the Jazirah” (1960, 148) implying that they are new and perhaps hybrid variants of given traditions. In other words, those

elements and motifs appropriated by the inhabitants of Tell Kurdu found their place within indigenous traditions and were adapted to fit local conventions and rules. Overall, thus a study of the painted designs at Tell Kurdu provides a window through which we can assess how cultural styles, ideas and practices can either be amenable to modification and hybridization or resist change altogether.

Bibliography

- Akkermans, P. M. M. G. (1993) *Villages in the Steppe: Later Neolithic settlement and subsistence in the Balikh Valley, northern Syria*. Archaeological Series 5, International Monographs in Prehistory, Michigan, Ann Arbor.
- Bernbeck, R. and Pollock, S. (2003) The biography of an Early Halaf village: Fıstıklı Höyük 1999–2000. *Istanbuler Mitteilungen* 53, 9–77.
- Bernbeck, R., Pollock, S. and Coursey, C. (1999) The Halaf settlement at Kazane Höyük: preliminary report on the 1996 and 1997 Seasons. *Anatolica* 25, 109–144.
- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavations in the Plain of Antioch*, Oriental Institute Publication 61, Chicago, University of Chicago Press.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, unpublished PhD thesis, Edinburgh, University of Edinburgh.
- Campbell, S. (2010) Understanding symbols: putting meaning into the painted pottery of prehistoric northern Mesopotamia. In D. Bolger and L. C. Maguire (eds) *The Development of Pre-State Societies in the Ancient Near East: Studies in Honour of Edgar Peltenburg*, 147–155, Oxford, Oxbow Books.
- Campbell, S. and Carter, E. (2006) Excavations at Domuztepe 2005. *Kazı Sonuçları Toplantısı* 28, 269–282.
- Campbell, S., Carter, E., Healey, E., Anderson, S., Kennedy, A. and Whitcher, S. (1999) Emerging complexity on the Kahramanmaraş Plain: the Domuztepe Project 1995–1997. *American Journal of Archaeology* 103, 395–418.
- Dabbagh, T. (1966) Halaf pottery. *Sumer* 22, 23–43.
- Davidson, T. E. (1977) *Regional Variation within the Halaf Ceramic Tradition*, unpublished PhD thesis, Edinburgh, University of Edinburgh.
- Diebold, B. (2000) Preliminary report on the ceramic assemblage at Tell Kurdu. In K. A. Yener, C. Edens, J. Casana, B. Diebold, H. Ekstom, M. Loyet and R. Özbal (eds) *Tell Kurdu Excavations 1999*. *Anatolica* 26, 58–65.
- Diebold, B. (2004) Excavations at Tell Kurdu 2001: the pottery. In R. Özbal, F. Gerritsen, B. Diebold, E. Healey, N. Aydın, M. Loyet, F. Nardulli, D. Reese, H. Ekstom, S. Sholts, N. Mekel-Bobrov and B. Lahn (eds) *Tell Kurdu Excavations 2001*. *Anatolica* 30, 52–55.
- Dietler, M. (2010) *Archaeologies of Colonialism: Consumption, Entanglement, and Violence in Ancient Mediterranean*, London, University of California Press.
- Fletcher, A. (2008) Ceramic styles at Domuztepe: evidence for social interaction in the Late Neolithic. In *Proceedings of the 4th International Congress of the Archaeology of the Ancient Near East, 29 March–3 April 2004, Freie Universität Berlin*, Vol. 2, 111–124, Berlin, Harrassowitz.
- Garstang, J. (1908) Excavations at Sakje-Geuzi in north Syria: preliminary report for 1908. *Liverpool Annals of Archaeology and Anthropology* 1, 97–117.
- Hijjara, I. (1997) *The Halaf Period in Northern Mesopotamia*, Edubba 6, London, NABU Publications.
- LeBlanc, S. and Watson, P. J. (1973) A comparative statistical analysis of painted pottery from seven Halafian sites. *Paléorient* 1, 117–133.
- Le Mière, M. and Nieuwenhuijse, O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad. The Late Neolithic Settlement*, 119–284, Leiden/Istanbul, Nederlands Historisch-Archaeologisch Instituut.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tell Arpachiyah, 1933. *Iraq* 2, 1–

- Merpert, N. and Munchaev, R. M. (1993) Yarim Tepe II: the Halaf levels. In N. Yoffee and J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization*, 129–162, Tucson, University of Arizona Press.
- Nieuwenhuyse, O. P. (2007) *Plain and Painted Pottery. The Rise of Late Neolithic Ceramic Styles on the Syrian Plains*, Turnhout, Brepols.
- Özbal, R. (2006) *Households, Daily Practice and Cultural Appropriation at Sixth Millennium Tell Kurdu*, unpublished Doctoral dissertation, Evanston, Illinois, Northwestern University.
- Özbal, R. and Gerritsen, F. (2013) Burnishing, painting and fenestrating: the social use of pottery at Tell Kurdu. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 107–116, Leuven, Brepols.
- Özbal, R., Gerritsen, F., Diebold, B., Healey, E., Aydın, N., Loyet, M., Nardulli, F., Reese, D., Ekstrom, H., Sholts, S., MekelBobrov, N. and Lahn, B. (2004) Tell Kurdu Excavations 2001. *Anatolica* 30, 37–108.
- Perkins, L. A. (1949) *The Comparative Archaeology of Early Mesopotamia*, Chicago, University of Chicago Press.
- Pollock, S., Bernbeck, R., Allen, S., Gessner, A. G. C., Costello, R., Costello, S. K., Foree, M., Lepinski, S. and Niebuhr, S. (2001) Excavations at Fıstıklı Höyük 1999. In N. Tuna, J. Öztürk and J. Velibeyoglu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1999*, 1–63, Ankara, Middle East Technical University.
- Tekin, H. (2011) A Halaf vessel recovered at Karavelyan excavations depicting a human and a building. *Tüba-Ar* 14, 309–312.
- Tsuneki, A., and Y. Miyake (1996) The earliest pottery sequence of the Levant: new data from Tell el-Kerkh 2, northern Syria. *Paléorient* 22, 109–123.
- von Oppenheim, M. F. (1931) *Der Tell Halaf. Eine neue Kultur im ältesten Mesopotamien*, Leipzig, Brockhaus.
- von Oppenheim, M. F. (1943) *Tell Halaf I, Die prähistorischen Funde, bearbeitet von H. Schmidt*, Berlin, De Gruyter.
- Watson, P. J. and LeBlanc, S. (1990) *Girikihacıyan: A Halafian Site in Southeastern Turkey*, Los Angeles, University of California, Institute of Archaeology.
- Yener, K. A., Edens, C., Casana, J., Diebold, B., Ekstrom, H., Loyet, M. and Özbal, R. (2000a) Tell Kurdu Excavations 1999. *Anatolica* 26, 32–117.
- Yener, K. A., Edens, C., Harrison, T. P., Verstraete, J. and Wilkinson, T. J. (2000b) The Amuq Valley Regional Project, 1995–1998. *American Journal of Archaeology* 104, 163–220.

Animal motifs on Halaf painted pottery

Mücella Erdalkıran

In memory of Sir James Mellaart who made great contributions especially to Anatolian archaeology.

Abstract

The Halafian people were great masters in transforming the natural environment in which they lived into their cultural repertoire. This is most clearly observed in their painted pottery. Animal motifs are very well represented among the naturalistic decoration that is so frequently encountered on this painted pottery. These motifs cover an amazing diversity of animals. We may identify 12 wild animal species, which would have constituted a significant part of the food economy. These motifs were executed in various styles, and applied to specific parts of certain pottery forms. This paper addresses why the Halafian people depicted specific animal species on their pottery, the mode of implementing these motifs on the pottery, and their possible social symbolic meanings.

Introduction

The Halaf culture of the sixth millennium BC in northern Mesopotamia is characterized in particular by its painted pottery. The Halaf painted designs comprise two general groups of motifs: geometric and naturalistic. The most frequently encountered type of naturalistic motifs is the animal motifs – the subject of this paper.

The primary aim of this paper is to draw attention to the Halaf animal motifs and make a classification useful for future studies. I shall start by reviewing the literature on Halaf painted pottery, identifying animal motifs and categorizing them by species. As much

as possible, I shall take into consideration the ideas of our colleagues on the species of the animal motifs. As it turns out, however, no species identification is mentioned in most publications. In such cases, and in cases where I thought the identification was incorrect, I identified the species myself. Using this categorization, I shall finally discuss the social symbolic meanings of these motifs. This paper further develops ideas already discussed elsewhere (Erdalkıran 2009).

Identifying animal motifs on Halaf pottery

The Halaf animal motifs which constitute the subject of this paper comprise 12 distinct species, viz. bucranium (bull), mouflon (wild sheep), deer, gazelle, mountain goat, onager, leopard, cheetah, fish, snake, scorpion, and various birds. These animals were generally portrayed in a naturalistic style. Although the same animal motif was usually arranged successively, there are also scenes in which animals of two different species are seen together. Even though the animal painting is generally monochrome, bichrome specimens are also available, although in a small number.

The bucranium

The most-used animal motif on Halaf pottery is a representation of the bull, horned cattle's head or bucranium. Its horns, its most obvious attribute, open upwards and the head is clarified with at least a line. This motif was generally arranged in the silhouette technique and could be either naturalistic or stylised. Both vertically and horizontally arranged bucrania occur (Fig. 13.1, 1–3). The bucrania consist of two separate sections representing the head and the horns, applied in various forms. In addition, on some bucrania the area immediately below the horns also contains ears, which are usually indicated in the form of two horizontal lines (Fig. 13.1, 1). In vertical arrangements, the horns constituting the end of the bucrania were generally shown as a single horn or as double horns resembling a tulip or a pot. However, with some specimens, either the bulls' horns opened towards the sides in an undulating manner or their tips were joined and closed (Erdalkıran 2009, Res. 2, 1–34).

The most naturalistic bucrania known so far were found at Yarım Tepe II (Fig. 13.1, 2), Yarım Tepe III, and Tell Hassan. The representations are quite realistic, although they were made in different styles.

When arranged in a vertical position, the bucrania were usually placed within a band in a repetitive order; however, there are also examples where they were divided into metopes by means of vertical

lines and/or dots (Mallowan and Rose 1935, 1–16, fig. 74). The vertically arranged bucrania were also used together with other animal motifs such as deer and mouflon (von Oppenheim and Schmidt 1943, Tafel vi: 2; fig. 1: 5).

The horizontally-arranged bucrania tended to be more stylised than the vertical ones. Some specimens may simply have been vertical bucrania which were rotated 90° right or left within a band (Fig. 13.1, 3). In the case of the horizontal bucrania, the head and the nose were sometimes indicated with very short horizontal and vertical lines. Sometimes a very short horizontal line was used to indicate the head, and sometimes only the horn section was shown. The horizontal, stylized bucrania were occasionally arranged as a continuous line by joining the tips of the horns with the straight lines that represented the heads. Sometimes only the horns were joined, creating new motifs. The horizontal bucrania were mostly bordered by straight lines or rows of dots. This motif could be applied in the form of single or multiple bands (Mallowan and Rose 1935, figs 74, 17–25; 75, 1–4, 6–10; Erdalkiran 2009, Res. 2: 35–55).

The mouflon

A distinct motif that at first sight closely resembles a bucranium, but which is distinguished by the downward orientation of its horns, was identified as a mouflon. Unlike the bull, this animal was depicted with not only its head but also its entire body, as with other types of quadrupeds in general (Fig. 13.1, 4–6). This motif is a frequently encountered animal figure, although not as frequently as the bucranium (Erdalkiran 2009, Res. 3). A mouflon's head was painted in two parts, showing the head and the horns separately, as with the bucranium. Straight or oblique ears were sometimes added to the head. The head itself was indicated with a vertical line to which the curved horns were added (Fig. 13.1, 4). As with the bucranium, the sections forming the head and the nose of the mouflon could be depicted in various ways. They were usually made in an extremely simple form with just a straight line (Erdalkiran 2009, Res. 3). The horizontal or vertical mouflons were generally made within a band, but there are also examples arranged in multiple rows. What should be highlighted here is the probability of confusing different species when a stylized bucranium is shown with a mouflon's head (Mallowan and Rose 1935, fig. 75, 7–10). In such cases, we may interpret motifs as either a mouflon or a bull according to the direction from which one looks at it. There are also examples where bucrania and mouflons were used together (Fig. 13.1, 5).

A few specimens depicting a mouflon with its body are known from Tell Halaf (von Oppenheim and Schmidt 1943, Tafel lvii, 7–9). The mouflon's body is depicted in profile, whereas its horns are depicted frontally; however, no complete specimen is seen (Fig. 13.1, 6).

Deer

Another animal which is frequently encountered on Halaf pottery is the deer. The deer was generally depicted with its entire body, mostly in profile and in a rather naturalistic style (Fig. 13.1, 7–8). However, we also know of a specimen showing only the head, the antlers and the neck (von Oppenheim and Schmidt 1943, Tafel v, 3). The characteristic features of the deer motif may include the antlers which extend backwards or upwards, the ears, a long tail, and a backward- or forward-looking head. This animal motif is sometimes reported to be standing on its four feet and sometimes to be lying with its legs bent under it. The male sexual organ of the deer was also indicated on some specimens (Fig. 13.1, 7; Erdalkıran 2009, Res. 4, 1–13).

A deer motif found at Yarim Tepe III differs from the other specimens by its branched horns and bichrome appearance (Fig. 13.1, 8). Another notable specimen of the deer motif is found on a special vessel excavated at Tell Arpachiyah (Hijara 1978, 125–126, fig. 1; Breniquet 1992, 69–78, fig. 3). Breniquet (1992, 71) and Ippolitoni-Strika (1996, 18) have interpreted this animal as a cow on the basis of the composition in which it was contained and because similar scenes were known from later cylinder seals. Nevertheless, judging on the basis of the body features of this animal, I think it is not a cow but a deer. This single deer, applied to the interior of an open bowl, was depicted completely in profile, standing upright, showing its long body and neck, evident hooves, and a thick upper section forming its legs. However, its complete form cannot be seen as its antlers remain partially hidden within the band delimiting the decoration. This deer actually has a more realistic style than other samples.

Gazelle

The gazelle, an animal occasionally encountered on Halaf pottery, is hard to distinguish from the deer in the literature. Both species come from the same family. The two most important features of the gazelle that distinguish it from the deer are its short tail and its shorter antlers (Fig. 13.1, 9–10; Erdalkıran 2009, Res. 4, 14–15).



Figure 13.1. Painted animal motifs on Halaf Fine Ware pottery: 1. Bucranium from Tell Arpachiyah (Mallowan and Rose 1935, fig. 74, 1); 2. Naturalistic bucranium from Yarim Tepe II (Merpert and Munchaev 1993a, fig. 8.4, 2); 3. Stylized horizontal bucranium from Tell Arpachiyah (Mallowan and Rose 1935, fig. 75, 7); 4. Stylized mouflons from Tell Arpachiyah (Mallowan and Rose 1935, fig. 75, 13); 5. Stylized bucranium and mouflons from Fıstıklı Höyük (Bernbeck and Pollock 2003, fig. 21, a); 6. Naturalistic mouflons from Tell Halaf (von Oppenheim and Schmidt 1943, *Tafel* lvii, 7); 7. Row of deer from Tell Halaf (von Oppenheim and Schmidt 1943, *Tafel* lvi, 2); 8. Bichrome deer from Yarim Tepe III (Merpert and Munchaev 1993b, fig. 9.36, 1); 9. Bichrome gazelle from Tell Brak (Mallowan 1947, 249, pl. lxxx, 14); 10. Gazelle from Tell Amarna (Cruells 2004, pl. 5.39, AM10552); 11. Mountain goat from Chagar Bazar (Mallowan 1936, fig. 27, 5); 12. Row of mountain goats on the jar from Tell Hassan (Fiorina 1987, fig. 7, h); 13. Onager from Yarim Tepe II (Merpert and Munchaev 1993a, [fig. 8.3, 3](#)); 14. A bichrome onager from Yarim Tepe III (Merpert and Munchaev 1993b, fig. 9.36, 2).

Thus, an animal decoration from Tell Arpachiyah is probably a gazelle with its short and upright tail and antlers (Mallowan and Rose 1935, fig. 77, 5). An almost completely preserved bichrome gazelle motif found at Tell Brak had its contours painted in black and its body in red ([Fig. 13.1, 9](#)). Another specimen shows a partially preserved gazelle's head on a small sherd found at Yarim Tepe III (Merpert and

Munchaev 1993b, fig. 9.12, 2). Further, five gazelles are seen on a partially preserved base sherd found at Tell Amarna. This amazing group of gazelle with miscellaneous dimensions were spaced closely together, probably because of the limited space available on this basal area (Fig. 13.1, 10).

Mountain goat

With its horns bent backwards like a bow, its short tail and its characteristic beard under its chin, the mountain goat is another wild animal seen on Halaf pottery (Fig. 13.1, 11–12; Erdalkıran 2009, Res. 5). Like the gazelle, the mountain goat was usually depicted with its entire body in profile standing upright, and it is possible to confuse the two because of their resemblance to each other. At Chagar Bazar, the mountain goat has a stylized form. The beard of the thin-bodied and long-necked animals and their backwards-turned horns are striking here (Fig. 13.1, 11). Although the mountain goats on a sherd found at Yarim Tepe II have been partially preserved, they highly resemble those detected at Chagar Bazar.

Another Halaf settlement where the mountain goat is encountered is Takyan. A mountain goat whose twisted upright horns, ears, and part of the head have been preserved was frontally painted on the exterior of a bowl sherd. It is probable that in this case only the head of the animal was painted, which distinguishes the specimen from Takyan from other mountain goat motifs.

The mountain goats from Tell Halaf were depicted extremely realistically with their heads, ears, and twisted horns. Another example of the mountain goat is on a body sherd found at Tell Hassan (Fig. 13.1, 12). With their long and flexible bodies, backward-oriented horns, and short tails, these animals are more stylized than the other examples.

The mountain goat motifs seen on two jars at Tell Sabi Abyad are distinguished from each other by their twisted horns and horns in an imposing bow form. Even though the overall stylistic features of the animals resemble each other, it is striking that the first one was made in relative perspective. In both specimens, it is seen that at least one of the animals is male. Additional examples found at Tell Sabi Abyad, however, show only the heads of the mountain goats within a composition, which is a different characteristic. They are analogous to the example from Takyan. Another specimen made in a very similar style was obtained from Tell Arpachiyah.

Onager

Another animal seen on Halaf pottery is the onager. Like the deer and the mountain goat, the onager, too, was depicted showing its entire body in profile in a realistic style. It is represented by just a small number of specimens (Fig. 13.1, 13–14; Erdalkıran 2009, Res. 6, 1–6). Although most of the onagers display features characterizing their species including their long, ears, a mane, long tails and always forward-looking heads, there are also specimens with unusual qualities such as a very long neck, an inward nose, and an unrealistically flexible body. As mentioned above, there are specimens at Tell Halaf which display exaggerated features. Therefore, these animals were interpreted as horses by von Oppenheim and Schmidt (1943). However, due to their general features, it is more likely that they represent onagers instead. In addition, an onager found at Yarim Tepe II was mis-identified as a deer by Merpert and Munchaev (1993a, 135). Here interpreted as an onager, the animal is striking with its longer than normal body (Fig. 13.1, 13). Another example of this animal was found at Tell Aqab. Moreover, a series of onagers from Girikihacıyan and Yarim Tepe III (Fig. 13.1, 14) were painted in bichrome by using black and brown paint. The specimens from Tell Aqab and Yarim Tepe III closely resemble each other in style.

Leopard

The leopard motif occurs on Halaf pottery at just four settlements, namely Tell Arpachiyah, Chagar Bazar, Tell Halaf, and Domuztepe (Fig. 13.2, 1–2; Erdalkıran 2009, Res. 6, 7–9, 11). The leopard was first identified at Tell Arpachiyah by Mallowan and Rose (1935, 164). The leopards from Tell Arpachiyah comprise a row of lying animals with spotted heads and spotted bodies whose long tails extend up to the throat of the animal behind them (Fig. 13.2, 1). The two specimens from Chagar Bazar, which closely resemble each other, are similar to the motif in Tell Arpachiyah. Additionally, at both settlements, the outlines of the body, legs, and tail were furnished with a single row of dots, presumably to emphasize the fur of the animal.

In a specimen found at Tell Halaf, the body with its neck and tail preserved but its head and claws removed is being dried by stretching it between two trees. I think this image is of importance in that it both indicates that the leopard was hunted for its fur and shows how the skin was dried (Fig. 13.2, 2). In this example, the fur is portrayed more realistically than in the other three examples, and it most probably belonged to a leopard. A final example of what might have been a leopard is seen on the interior of three sherds that do not fit

but clearly must have belonged to the same vessel found at Domuztepe.

Cheetah

Another predatory mammal seen on Halaf pottery is the cheetah, although only two specimens have so far been found. The cheetah and the leopard both come from the family of *Felidae* and closely resemble each other. The most important feature which distinguishes the former from the latter is its athletic body. This feature of the animal is seen very clearly on two examples from Yarim Tepe. On a bowl found at Yarim Tepe II, a partially preserved cheetah shown in profile was standing on its rear feet. With its forepaws it attacks another cheetah that was probably located in front of it (Fig. 13.2, 3). *Vice versa*, one of the forepaws of the cheetah in front of it touches the arm of the other one. The entire bodies and tails of these animals, made in an extremely naturalistic style, were decorated with dots. The second example comes from Yarim Tepe III. This image, only a small fragment of which was identified, probably shows the animal standing on its rear feet, like the specimen from Yarim Tepe II.

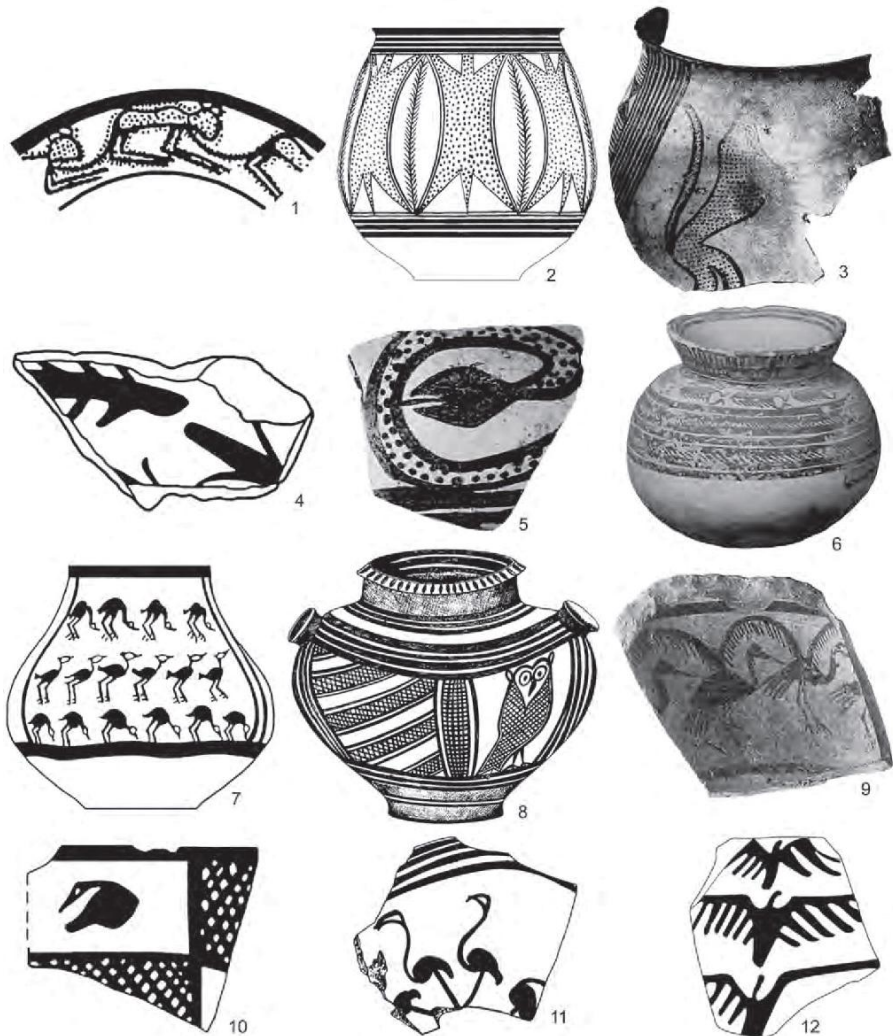


Figure 13.2. Painted animal motifs on Halaf Fine Ware pottery: 1. Row of leopards from Tell Arpachiyah (Mallowan and Rose 1935, fig. 77, 1); 2. A row of leopard fur from Tell Halaf (von Oppenheim and Schmidt 1943, *Tafel* xxviii, 1); 3. Two cheetahs from Yarim Tepe II (Merpert and Munchaev 1993a, fig. 8.4); 4. Fish from Yarim Tepe II (Merpert and Munchaev 1993a, fig. 8.31, 1); 5. Snake from Tell Halaf (von Oppenheim and Schmidt 1943, *Tafel* lvii, 10); 6. Row of scorpions on the jar from Tell Hassan (Fiorina and Bulgarelli 1985, no. 25); 7. Birds on the jar from Tepe Gawra (Tobler 1950, pl. cxvi, 59); 8. Owl from Yarim Tepe III (Merpert and Munchaev 1993b, fig. 9.37); 9. Row of storks from Tell Halaf (von Oppenheim and Schmidt 1943, *Tafel* lviii, 7); 10. Probably a goose from Tell Hassan (Fiorina 1987, fig. 7, g); 11. Flamingo group on the bowl from Yarim Tepe III (Merpert and Munchaev 1993b, fig. 9.33, 2); 12. Vultures from Yarim Tepe II (Merpert and Munchaev 1993a, fig. 8.30, 5).

Unidentified quadrupeds

Apart from the relatively well-identifiable animal motifs we have listed above, I also came across several quadruped animal figures less easy to identify. Of the quite stylized animals, the first one was found

at Tell Arpachiyah (Hijara 1997, pl. xlviii). I think this animal must have belonged to family Felidae due to its general physical properties. Another unidentified animal found at Karavelyan must have belonged to family Canidae (Tekin 2012, 43). A quadruped found at Tell Arpachiyah is probably a mountain goat (Hijara 1997, pl. xxix, 197). The fourth and last example found at Yarim Tepe II is too stylized to be included in a specific group (Merpert and Munchaev 1993a, 157, fig. 8.31, 8).

Fish

Even though the Halaf settlements were often established nearby water sources, the archaeological literature suggests that the fish was rarely selected as an animal motif (Erdalkıran 2009, Res. 7, 1–3). At Yarim Tepe II, three swimming fish with open fins were painted on what seems to have been the central base of a plate or a bowl (Fig. 13.2, 4). In addition, the excavators of this site report a fish motif covering the larger part of a bowl and that the fish motif was present on two more sherds from Yarim Tepe III (Merpert and Munchaev 1993b, 177–178). Another example was detected on the exterior of a bowl from Tell Bagum. This fish motif, arranged repetitively around the vessel, was depicted extremely realistically with broad, scaly bodies, fins, tails, mouths, and eyes. With its clearly scaly and wide body, this specific specimen resembles a carp. Further examples of the fish motif are known from the two sherds – a base and a body – recovered from Shams ed-Din Tannira on the Syrian Euphrates. Here the fish were painted completely solidly, as with the example from Yarim Tepe II. At both settlements, the fish resemble trouts.

Snake

The only reptile so far identified on painted Halaf pottery is the snake. Although the snake is rarely encountered as a painted motif and could be identified at four settlements only, it was depicted differently in each of them (Erdalkıran 2009, Res. 7, 4–10). The best-known example is an almost complete specimen found at Tell Arpachiyah. This coiled up snake with dotted skin had its head, eyes, and forked tongue elaborated in an extremely naturalistic style. A second snake from Tell Arpachiyah comes from the same unique bowl on which we have already identified several other animals. In contrast to the other example from Tell Arpachiyah, this snake was much more stylised. With its thick body and triangular head, the snake was shown in a twisted form, placed within a metope with dots unlike the others, Maltese crosses, and triangles surrounding it as filling motifs. Further,

at Tell Halaf a snake with a twisted body and dotted skin extended its tongue from a solidly-painted head in the shape of an equilateral quadrangle (Fig. 13.2, 5).

Although all incomplete, three very similar naturalistic depictions of the snake were found at Yarim Tepe II. A sherd on which the body and the tail of a snake were partially preserved was obtained from Yarim Tepe III. The last specimen to be discussed is a snake obtained from Takyan. Next to it, the tail of another snake is visible.

Scorpion

Interestingly, the scorpion counts as the most rarely encountered animal motif on Halaf pottery, even though scorpions must have roamed the steppes very frequently in the Late Neolithic. Only three instances of scorpion motifs have been found so far from Halaf pottery. They have been detected at Tell Hassan, Kerküştü Höyük, and Karavelyan. At Tell Hassan, the scorpion motif was arranged in a single row on the shoulder of a pot. The scorpions are striking with their curled tails extending along their bodies, their large number of diagonally oriented legs, and their exaggerated pincers (Fig. 13.2, 6). At Kerküştü Höyük, three rows of scorpion motifs are seen on the exterior of a sherd as far as the image has been preserved. Two of the animals were relatively complete, although parts of their curled tails and pincers were missing. The third and last scorpion motif to be discussed was identified on a small bowl found at Karavelyan. As far as the composition has been preserved, at least three scorpions are probably shown side by side. They are extremely coarse as compared to the previous specimens.

Birds

Birds are numerically the largest group of animal species observed on Halaf pottery. The birds are sometimes too stylised to be identified, but in other cases they are extremely naturalistic (Fig. 13.2, 7–12; Erdalkıran 2009, Res. 8). Identifiable species include stork, flamingo, owl, vulture, and Anatidae. While monochrome paint was predominant, bichrome paint was also sometimes used for painting birds, and one specimen was even applied with very rarely seen white paint.

Although birds were generally shown in profile, frontally depicted specimens are available too. To its most stylised extreme, birds were outlined just with lines representing their head, bill, neck, and body, resembling an upside-down “Z”. These images probably depict birds swimming in water or in a perching position. Sometimes such stylized

birds were depicted in a standing position by simply adding two straight legs (Merpert and Munchaev 1993a, fig. 8.30). The birds were shown in very different ways and positions (Fig. 13.2, 7): long-legged, long-necked, with bent legs as if they were preparing to fly, drinking water, perching, and flying with wings outstretched. Often the wings were not indicated as such while the bodies were painted solidly; however, we also find more naturalistic specimens with a hatched body that do have their wings indicated.

Although the bird motif occurs very often on Halaf pottery, the identifiable bird species are rather limited in number. A species known from Yarim Tepe III is the owl (Fig. 13.2, 8). The crosshatched body and tail of the bird were shown from the back; its legs were shown in profile; and its backward-facing head was shown frontally. So far, this has been the only unequivocal example of an owl painted on Halaf pottery. As the ear feathers are shown explicitly, Dinçer (2001) argues that this bird was probably an eagle owl.

At Tell Halaf, a row of *storks* with long necks, bills, and legs are shown to be flying with open wings, painted on the interior of a bowl (Fig. 13.2, 9). In contrast, another example of flying storks from the same settlement shows them looking towards the ground. On yet another example from Tell Halaf, rows of storks are shown flying with open wings on the exterior upper body of a pot. The stork motif is also seen at Tell Hassan: here the animals are shown walking. At Chagar Bazar, rows of what probably are storks have been reported to be feeding or drinking water. Further examples of storks come from Yarim Tepe II (Merpert and Munchaev 1993a, fig. 8.3, 5–6) and Yarim Tepe III (Merpert and Munchaev 1993b, fig. 9.12, 6).

Another identifiable bird family is the *Anatidae*. This category comprises geese and ducks. The geese with heads turned backwards and the feeding ducks from Tell Hassan were arranged as part of a checker motif (Fig. 13.2, 10). The large-bodied and long-necked birds swimming in water from Tell Halaf, too, were probably geese.

Then there are the *flamingos* with curved bills, sinuous long necks, and long legs. We find them at the centre of a bowl from Yarim Tepe III (Fig. 13.2, 11). Another probable flamingo was identified from Tell Hassan, and this bird was painted in rows between two hatched bands. The long, sinuous-necked and small-bodied flamingo appears to be shown walking.

At Yarim Tepe II and Tell Arpachiyah, we find the *vulture*. At Yarim Tepe II, the vultures are shown frontally with their small heads, large bodies, tails, and long, feathered wings opening to the sides (Fig. 13.2, 12). As far as preserved, the vultures are shown arranged in a row. At

Tell Arpachiyah, we find two vultures flying with their impressive wings wide open, and even the feathers are indicated one by one. The bills of these long-necked and long-headed birds are hook-shaped.

What distinguishes the bird motif from most other animal motifs is that it was much more frequently shown in relationship with other animals, humans, or even architecture. The bird motifs I am concerned with here come from Fıstıklı Höyük (Bernbeck and Pollock 2003, fig. 22, g), Domuztepe (Campbell 2004, 5), and Tell Sabi Abyad (Akkermans 1989, figs iv.31, 228; iv.32, 241).

Animal motifs in context

Naturalistic animal motifs on Halaf pottery have stimulated a lively, quite extensive debate, and scholars have approached these images from various interpretative perspectives. Of course, it will remain impossible for us to know what the Halaf communities themselves thought about the animal compositions which I have discussed above. However, I may outline a few promising directions for further work.

A crucial first step would be to take a comparative look at the subsistence economy of the Halafians. As it is known, the Halaf settlements are located in the region of northern Mesopotamia where dry farming is carried out and immediately to the south of it. This enabled the people of the period to rely on dry farming. In addition, animal husbandry and hunting were essential sources of subsistence during this period. Nevertheless, it has also become clear that the subsistence economy varied according to the geography where settlements were located. The primary fattening animals were sheep and goats, followed by pigs and cattle, although in a smaller number. Zooarchaeological analyses of animal exploitation patterns at Halaf settlements show that game animals generally included cattle, deer, gazelle, onager, badger, hare, bird, and fish. These are the same animal motifs used to decorate pottery vessels. The rates of specific game animals or animals for fattening varied by settlement (Akkermans 1993, 250–268; Zeder 1994, 102–104; Cavallo 2000, 17–24). Thus, animal husbandry was particularly important in the more mountainous north, while hunting was more important in the southern steppes (Akkermans 1993, 250–268). Small, seasonally inhabited settlements such as Umm Qseir (Zeder 1994, 101, 104) and Khirbet esh-Shenef (Akkermans 1993, 209–210) in the steppes of Northern Syria depended on animal husbandry, but when it is considered that 57% of the animal bones detected in Umm Qseir and 35.5% of the animal bones detected in Khirbet esh-Shenef belonged to game animals, it is clear that hunting was considerably important out

in these settlements, along with animal husbandry.

As explained above, 12 animal species were identified on Halaf pottery. I argue that all of them represent wild species. Only the bucranium motif discussed above is ambivalent in this regard. The bull occurs both as a wild and a domestic species. The process of domestication of cattle had not yet been completed, but the increased importance of the bull during the Halaf period is supported by the frequent use of bucranium motifs for the decoration of pottery vessels and in the popularity of three-dimensional bull figurines (Matthews 2000, 109). In all likelihood, the bucranium motif on Halaf pottery symbolizes a wild species, as with all the other animal motifs, rather than its domestic state. In this context, the idea that wild animals were dominant in art is also valid for the Halaf Period. A complete pig-shaped zoomorphic vessel from Yarim Tepe II (Merpert and Munchaev 1993a, figs 8.14–15) supports the notion that only wild animals figured on Halaf pottery: not a single *painted* example of this domestic animal has so far been attested on the pottery. Pig and other domestic animals occurred as three-dimensional shapes and figurines, but they were never painted on the pottery. This might have been because the pig was a relatively easy prey and the other domestic animals had already been available in their stocks. In other words, the iconography we observe on painted Halaf vessels does not simply represent a neat mirror image of Halaf subsistence.

As already mentioned, hunting held an important place in the subsistence economy of the Halafians. Of the animals seen on the Halaf pottery, (wild) cattle, mouflon, mountain goats, deer, gazelle, onager, fish and birds were probably hunted for their meat, whereas leopards and cheetahs may have been hunted for their skin. Of course, the fur of animals hunted primarily for their meat was probably used as well. Alongside these game animals, human beings holding a bow in their hands were also depicted on some Halaf vessels. Such images have been recovered from Yunus (Dirvana 1944, pl. lxxxiii, 5), Sakçegözü (Garstang *et al.* 1937, pl. xxv, 15), Tell Arpachiyah (Hijara 1978, fig. 1) and Tell Sabi Abyad (Akkermans 1993, fig. 3.21, 40). Hunting and the hunter must have been crucial concepts for those settlements which met their need for meat only through hunting. For these reasons, it is possible to state that the wild animals primarily had a symbolic meaning referring to the hunt.

Interestingly, the gender of some of the deer and mountain goats seen on the pottery was indicated with their sexual organs. They were shown to be male. If we also assume that long- and wide-horned animals are male, we will have to accept that a significant portion of

the painted animal motifs was male. This may suggest that there was sexual discrimination in hunting. Indeed, there is some partial evidence for this from the zooarchaeological data. By drawing attention to the presence of only male gazelle at Tell Sabi Abyad, Cavallo suggests that this reflects a preferred killing of only male gazelle (2000, 108). The real purpose here must have been to take measures against the decrease in, or extinction of, the animal population by leaving the reproducing females alive. Furthermore, the population of males, which were more aggressive than females, would also be taken under control. Thus, it seems possible to suggest a symbolic connection among the hunt, the wild, danger, and male identity in the Halaf period.

Then we find other dangerous animals that carried very little economic-subsistence value, yet sometimes figure in the painted iconography. The snake and the scorpion represented dangerous, potentially fatal elements of the ecological system in which the Halaf communities lived. Moreover, the sloughing of the snake is related to rebirth and eternity. Maybe the snake motif was therefore made in a larger number than that of the scorpion. As with the other wild, dangerous animals, they probably held important roles in the faith system of these people and perhaps in their mythology.

Summarizing the structural-stylistic arrangements of the animal motifs on Halaf pottery, the motifs were generally placed in a repetitive manner, sometimes in groups, and very occasionally singly. The animals in groups comprise individuals in different sizes and it was probably intended to depict them in herds. If it was intended to make the animals in herds, they were made in scattered order and were not bordered by horizontal lines. In addition, the motifs as the repetition of the same animal were frequently placed within a band or bordered by straight lines. The surroundings of the animal motifs were often filled with elements such as dots, "stars", or the "sun". These may simply have been filling elements, but they may also have carried specific meanings as yet unknown to us (Campbell 2010). Animal motifs could be applied to both surfaces of the vessels, but their use on the exterior is more common. It is impossible, finally, to make a connection between animal species and specific vessel forms. Nevertheless, they generally preferred to place the quadrupeds, which covered a relatively wider area, on the exterior of the vessels.

It is difficult at this stage to identify regional distinctions in the animal motifs. The diversity of the animal imagery was richer in the Khabur headwaters, thanks to the excavations at Tell Halaf and Chagar Bazar, and in the Mosul region due to Tell Arpachiyah and

Yarim Tepe. However, this may also reflect simply the intensity of excavations. Animal motifs, finally, do not seem to display any stylistic development parallel with the periodization of the Halaf culture. Tentatively, we may suggest that these motifs were more diverse in the Middle and Late Halaf phases.

Concluding remarks

To arrive at a general evaluation, it is clear that the animal motifs applied to Halaf pottery carried rich symbolic meanings apart from simply being “ornamentation”. These symbolic meanings may trace their roots back far into the past. Similar depictions have already been found at much earlier stages of the Neolithic. At Göbekli Tepe, for instance, virtually the same repertoire of animal motifs as in the Halaf repertoire occurs (Schmidt 2011, fig. 8–36). Animal reliefs are seen on almost all pillars in the sanctuaries there; these were probably made for religious purposes; and the animals here are also male (Schmidt 2007; 2011), as in the Halaf. Now considered domestic, the buildings of Catalhoyuk (Hodder 2006), much closer in time to the Halaf culture have wall paintings and reliefs comprising very similar animals (Mellaart 1967). Moreover, high-quality stone vessels carrying incised animals have already been found at Pre-Pottery Neolithic A (PPNA) settlements, such as probably the fox in Hallan Çemi (Rosenberg 2011) and mountain goats, birds, snakes, and scorpions at Körtik Tepe (Özkaya and San 2007). At the next stage, human and animal reliefs began to be applied following the production of the early clay vessels. For instance, a ram’s head, a goat’s head, antlered quadrupeds likely to represent deer, probably a bull, and even a snake are found at Umm Dabaghiyah (Kirkbride 1972; 1973). Briefly, the Late Neolithic people in the Near East always used the symbolism of wild animals. Nevertheless, the material used varied by period. The practice of, specifically, painting pottery vessels with animal motifs began not long before the Halaf Period. Although they occur less frequently than in the Halaf, various animal motifs were used to decorate Samarran and Hassuna Painted Fine Ware pottery in settlements such as Tell Hassuna (Lloyd *et al.* 1945), Tell Baghouz (Braidwood *et al.* 1944), and Matarrah (Braidwood *et al.* 1952). In the Halaf Period, the use of such motifs increased significantly. Considering the long history of animal motifs prior to the Late Neolithic, reaching all the way back into the PPNA, and taking into account the discrepancies observed between the wild species attested in the iconography and the range of wild and domestic animals documented in Halaf subsistence, we may safely state that these animals symbolized the religious beliefs and

mythology of Halaf communities.

Probably the clearest expression of this is the Halaf bucranium, as Mallowan and Rose already highlighted (1935, 154–163). The bull's skull was found in buildings as early as the PPNA, as for instance at Hallan emi (Rosenberg 2011, fig. 7). Both the bull and the bucranium figure on the pillars of Göbekli Tepe (Schmidt 2011, figs 14, 22, 36). The most impressive examples are the plastic bull images found at Çatalhöyük (Mellaart 1967, Pls 15–16, 22–23, 28). In the Late Neolithic, after people began using clay for pottery making, such images were transferred to pottery containers, at first in the form of a relief and then in the form of painted decoration. Painted images of the bucranium began to appear in very small numbers in the Pre-Halaf period, showing a significant increase in the Halaf Period. Vessels carrying a bucranium are found at almost all settlements of this period. Although the bucranium remained the most frequently employed animal motif, the same increase is seen for other animals such as the mountain goat, the leopard, the snake, and the scorpion.

On the other hand, among all the Halaf animal motifs, only the bucranium and the mouflon were depicted in a stylized manner with symbolic implications. It must be emphasized that the bucranium, seen in a large number and in different styles, was an important symbol for the Halaf society. In this context, the numerous bull motifs are the best expression of the use of symbolism, as stated by Schmidt (2007, 441).

In summary, besides ascribing symbolic meanings to the Halaf animal motifs, some symbols must have mostly been part of mythology. One reason why these symbols are so permanent may have been that they were transmitted across generations as part of oral histories. Myths were kept alive for thousands of years and adorned with themes in different contexts (Hodder 2006, 143). In conclusion, I argue that the animal motifs seen as painted decoration on Halaf pottery resulted from religious beliefs, the origins of which date back as far as the PPNA. The frequent use of such imagery over such a long time span suggests that Neolithic peoples were closely inspired by their beliefs and traditions, which were handed down from generation to generation.

Bibliography

- Akkermans, P. M. M. G. (1989) The prehistoric pottery of Tell Tell Sabi Abyad. In P. M. M. G. Akkermans (ed.) *Excavations at Tell Tell Sabi Abyad. Prehistoric Investigations in the Balikh Valley, Northern Syria*, 77–213, British Archaeological Report S468, Oxford, British Archaeological Reports.
- Akkermans, P. M. M. G. (1993) *Villages in the Steppe, Late Neolithic Settlement and Subsistence in*

- the Balikh Valley, Northern Syria, Archaeological Series 5, International Monographs in Prehistory, Michigan, Ann Arbor.
- Bernbeck, R. and Pollock, S. (2003) The biography of an Early Halaf village: Fıstıklı Höyük 1999–2000. *Istanbul Mitteilungen* 53, 9–77.
- Braidwood, R. J., Braidwood, L. S., Tulane E. and Perkins, A. L. (1944) New Chalcolithic material of Samarran type and its implications: a report on Chalcolithic material of the Samarran type found at Baghouz on the Euphrates, and a reconsideration of the Samarran material in general (especially the painted pottery) in the light of this new material. *Journal of Near Eastern Studies* 3/1, 47–72.
- Braidwood, R. J., Braidwood, L. S., Smith J. G. and Leslie, C. (1952) Matarrah: a southern variant of the Hassunan assemblage, excavated in 1948. *Journal of Near Eastern Studies* 11/1, 1–75.
- Breniquet, C. (1991) Un Site Halafien en Turquie Meridionale: Tell Turlu. *Akkadica* 17, 1–35.
- Breniquet, C. (1992) A Propos du Vase Halafien de la Tombe G2 de Tell Arpachiyah. *Iraq* 54, 69–78.
- Campbell, S. (2004) Domuztepe 2004 excavation season. *Anatolian Archaeology* 10, 4–7.
- Campbell, S. (2010) Understanding symbols: putting meaning into the painted pottery of prehistoric northern Mesopotamia. In D. Bolger and L. C. Maguire (eds) *The Development of Pre-state Communities in the Ancient Near East: Studies in Honour of Edgar Pelten*, 147–155, Oxford, Oxbow Books.
- Cavallo, C. (2000) *Animals in the Steppe, A Zooarchaeological Analysis of Later Neolithic Sabi Abyad, Syria*. British Archaeological Report S891, Oxford, Archaeopress.
- Cruells, W. (2004) The pottery. In O. Tunca and M. Molist (eds) *Tell Amarna (Syrie), La Periode de Halaf*, 41–85, Louvain/Paris/Dudley (MA), Peeters.
- Dinçer, B. (2001) Halaf'ın Kuşları. Available online from <http://paleoberkay.atspace.com/turkce/halaf.html> (accessed 23.05.2014).
- Dirvana, S. (1944) Cerablus Civarında Yunus'ta Bulunan Tel Halaf Keramikleri. *Belleten* 8, 403–430.
- Erdalkıran, M. (2009) Halaf Kapları Üzerinde Görülen Hayvan Motifleri. In H. Sağlamtimur, E. Abay, Z. Derin, A. Ü. Erdem, A. Batmaz, F. Dedeoğlu, M. Erdalkıran, M. B. Baştürk and E. Konakçı (eds) *Studies in Honour of Altan Çilingiroğlu. A Life Dedicated to Urartu on the Shores of the Upper Sea*, 275–298, İstanbul, Arkeoloji ve Sanat Yayınları.
- Fiorina, P. (1987) Tell Hassan: Les Couches Halafiennes et Obeidennes et la Relation Entre les Deux Cultures. In J. L. Hout (ed.) *Préhistoire de la Mésopotamie*, 243–255, Paris, CNRS.
- Fiorina, P. and Bulgarelli, G. M. (1985) Tell Hassan. In E. Quarantelli (ed.) *The Land Between Two Rivers. Twenty Years of Italian Archaeology in the Middle East. The Treasures of Mesopotamia*, 28–36, Turin, Il Quadrante.
- Garstang, J., Phythian-Adams, W. J. and Williams, V. S. (1937) Third report on the excavations at Sakje-Geuzi, 1908–1911. *Liverpool Annals of Archaeology and Anthropology* 24, 119–140.
- Hijara, I. (1978) Three new graves at Arpachiyah. *World Archaeology* 10/2, 125–128.
- Hijara, I. (1997) *The Halaf Period in Northern Mesopotamia*, London, Nabu Publications.
- Hodder, I. (2006) *The Leopard's Tale: revealing the mysteries of Çatalhöyük*, New York, Thames and Hudson.
- Ippoliti-Srika, F. (1996) Halafian art, religion, society: the funerary bowl from Arpachiyah – the fringed square as a “sacred rug”. *Mesopotamia* XXXI, 5–31.
- Kirkbride, D. (1972) Umm Dabaghiyah 1971: A preliminary report, an early ceramic farming settlement in marginal north central Jazira, Iraq. *Iraq* 34, 3–15.
- Kirkbride, D. (1973) Umm Dabaghiyah 1972: a second preliminary report. *Iraq* 35, 1–7.
- Lloyd, S., Safar, F. and Braidwood, R. J. (1945) Tell Hassuna excavations by the Iraq Government Directorate General of Antiquities in 1943 and 1944. *Journal of Near Eastern Studies* 4/4, 255–289.
- Mallowan, M. E. L. (1936) The excavations at Tall Chagar Bazar, and an archaeological survey of the Habur region, 1934–5. *Iraq* 3, 1–59.
- Mallowan, M. E. L. (1947) Excavations at Brak and Chagar Bazar. *Iraq* 9, 1–266.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.

- Matthews, R. (2000) *The Early Prehistory of Mesopotamia 500.000 to 4.500 B.C.*, Subartu V, Brepols/Turnhout, Brepols.
- Mellaart, J. (1967) *Çatal Hüyük, A Neolithic Town in Anatolia*, New York, Thames and Hudson.
- Merpert, N. Y. and Munchaev, R. M. (1993a) Yarim Tepe II: the Lower Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamia Civilization*, 130–162, Tucson/London, University of Arizona Press.
- Merpert, N. Y. and Munchaev, R. M. (1993b) Yarim Tepe III: the Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamia Civilization*, 163–205, Tucson/London, University of Arizona Press.
- Özkaya, V. and San, O. (2007) Körtik Tepe: Bulgular Işığında Kültürel Doku Üzerine İlk Gözlemler. In M. Özdoğan and N. Başgelen (eds) *Anadolu'da Uygarlığın Doğuşu ve Avrupa'ya Yayılımı: Türkiye'de Neolitik Dönem, Yeni Kazılar, Yeni Bulgular* (Levhalar), 14–28, İstanbul, Arkeoloji ve Sanat Yayınları.
- Rosenberg, M. (2011) Hallan Çemi. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey, The Tigris Basin* Vol. 1, 61–78, İstanbul, Arkeoloji ve Sanat Yayınları.
- Schmidt, K. (2007) Göbekli Tepe-Yuvarlak Yapılar ve Kabartmalar. In C. Lichter (ed.) *Vor 12000 Jahren in Anatolien. Die ältesten Monumente der Menschheit*, 440–448, Karlsruhe, Badischen Landesmuseum.
- Schmidt, K. (2011) Göbekli Tepe. In M. Özdoğan, N. Başgelen and P. Kuniholm (eds) *The Neolithic in Turkey, The Euphrates Basin* Vol. 2, 41–83, İstanbul, Arkeoloji ve Sanat Yayınları.
- Tekin, H. (2012) Karavelyan: Diyarbakır'da Bir Halaf Yerleşimi. *Aktüel Arkeoloji* 26, 42–44.
- Tobler, A. L. (1950) *Excavations at Tepe Gawra II*, Philadelphia, University of Pennsylvania Press.
- von Oppenheim, M. F. and Schmidt, H. (1943) *Tell Halaf I: die Prähistorischen Funde*, Berlin, de Gruyter.
- Zeder, M. A. (1994) After the revolution: post-Neolithic subsistence in northern Mesopotamia. *American Anthropologist* 96/1, 97–126.

What happened in prehistory: can sherds speak?

Petr Charvát

Abstract

This is a paper on the interpretation of the checkerboard pattern. The study of data from the earliest strata of Sumerian culture, and especially from the seal impressions found in the archaic strata of Ur (SIS 8–4, first third of third millennium BC) indicates that the checkerboard pattern may stand for fertility and force of procreation.

Introduction

The patterns painted on ancient pottery of the Near East have always constituted a challenge to all students of economy, society and spirituality of this region, once so important for human history. The relevant contributions are legion, and it seems unlikely to me that any bibliographical effort could exhaustively describe them. I have tried to subsume those which seemed most instructive to me in my overall treatment of the Mesopotamian prehistory and early protohistory (Charvát 2002). I am grateful to all the organizers of the Rejvív conference on prehistorical painted pottery of the Near East who have offered me the chance to voice my views on this conference's theme.

Some time ago, I have attempted to put forward interpretations of motifs borne by the ancient painted pottery of Susa (south-west Iran), referring to the possible social dimension of these art elements (Charvát 2005). Excavations at this huge multi-period mound exposed the outlines of a large ritual platform at the base of a sounding. Next to this platform, generally dated into the early fourth millennium BC, was found an earlier cemetery, dating perhaps to the turn of the fifth and fourth millennia. Many of the prehistoric burials yielded very elaborately painted pottery vessels of extraordinary craftsmanship.

For the purposes of this volume on prehistoric pottery of the Near

East, however, I propose to contribute something different. I have recently been concerned with materials (especially seal impressions) excavated at archaic Ur, that is, in layers denoted by the city's excavator, Leonard Woolley, as SIS (= Seal Impression Strata) 8–4. These strata are stratigraphically sandwiched between the municipal cemetery sequence including the “royal graves” (c. twenty-seventh century BC) as the *terminus ad quem*, and the so-called “Jamdat Nasr cemetery”, of ED-I (-II?) date as the *terminus a quo* (possibly twenty-ninth century BC; for a recent survey of issues concerning these archaeological contexts see Šašková *et al.* 2010). Since their discovery, the relevant materials have been published and studied repeatedly (see especially UE III; Matthews 1993; Scott 2005).

Here I intend to focus on one of the particularly visible ornament motifs displayed by the sealings of archaic Ur, namely the checkerboard pattern.

The checkerboard motif in prehistory

By “checkerboard” I mean any abstract ornament consisting of components of identical regular shape, mostly a geometric and angular one, seamlessly abutting one another, and infilling the entire decorated area. I have commented extensively on the checkerboard pattern at prehistoric Susa and in later contexts, and suggested that it be interpreted as a symbol of fertility and procreative force (Charvát 2005, *passim*). One particular reason seems to recommend focusing on just this ornament type at archaic Ur. While the glyptic of the Late Uruk period seems to incarnate general aspects of coeval spirituality and especially ideology, departing radically from earlier usages and ushering in a brand-new world of images and signs (see Rova 1994, and, more recently, *e.g.* Boehmer 1999), the archaic sealings of Ur seem to revert to the répertoire of traditional icons and patterns, of which some heed as far back in time as the world of the Susa painted pottery a thousand years earlier. By exploring the Ur sealings, therefore, we may perhaps perceive, albeit dimly, outlines of how their predecessors understood this particular pattern, and its role in their symbolic world (Table 14.1).

Unfortunately, a whole group of checkerboard motifs show hardly anything else than just this pattern, some being in a particularly wrecked state (Scott 2005, 670, 738, 742, 779, 793, 801, 882, and 945). It is only the more eloquent items that can supply more information.

The motif turns up early, as is shown by the sealing (Legrain 1936, 28); found in Pit W, SIS 6–7 (early ED I; on the chronology of SIS see

recently Sørensen 1999 and Dittmann 2006), with all the other items coming from SIS 4–5. The simplest version of the checkerboard pattern consists of rows of rhomboids filled in with straight lines running parallel to the two opposite-lying sides of the rhomboid (Legrain 1936, 145, 146, 147, 556). Here it might be legitimately asked whether this device may be brought into connection with the proto-cuneiform sign NAM2 = ZATU No. 384 p. 251 = Englund *et al.* 1991, 127 (Biggs 1966, 77: table and 77–78: fn. 37; sign similar to the Abu Salabikh ductus), referring possibly to a dignitary, or to a category of land.

The only illumination on the ornament's message that we receive comes from item (Legrain 1936, 556), associating this pattern with images of a scorpion, spread eagle, and with the sign DU3 (Fig. 14.1).

The combination of scorpion-cum-spread eagle occurs also on seal (Legrain 1936, 365) (see Scott 2005, 600), where it accompanies a coitus scene, and thus falls within the fertility-symbolism sphere. The DU3 sign (ZATU no. 280 p. 207 = Englund *et al.* 1991, 116 and 163), accompanying a number of seals of archaic Ur, implies a sense of “make, create something” but also “engender”, and so points to the same sphere of fecundity and procreation (see now the PSD, <http://psd.museum.upenn.edu/epsd/nepsd-frame.html> (accessed 26.03.2014) s. v. du. = Akkadian *banû* “to create; build; engender”).

A further group of examples features checkerboard patterns composed of biconical elements joined by their tips, not bases, similar in shape to the hourglass (Legrain 1936, 165, 167–169, 239 and 291). The pattern itself is known from prehistoric Susa pottery (Charvát 2005, *passim*) and its occurrence at Ur remains something of a mystery. It is frequently accompanied by figurative elements that include an image of a file of animals, of which the last one is attacked by a beast of prey, probably a lion (Legrain 1936, 168). Two other instances combine our pattern with human agents. Figures of a human lifting a hand by a tree, and another human driving animal with stick, may be seen in Legrain 1936, 167. Seal (Legrain 1936, 169) then displays a banquet scene with a sitting personage holding a cup and served by a standing (naked?) figure, to the sounds of harp music played by another attendant. A meaning perhaps related hereto may be sought in (Legrain 1936, 239), in which a composition of horned quadrupeds arranged symmetrically around a central object (a tree or a pole?) accompanied by other animals is complemented by a panel of hourglass checkerboard, and by proto-cuneiform signs UB and UR2. Sign UB is likely to represent a geographical entity (UB = ZATU 572 p. 300, a city, also tribute; Englund *et al.* 1991, 156–157, a city;

Burrows 1935, text 239 has a PN amar-UB), while sign UR2 points again towards the sphere of fertility and procreation (Charvát 2010, 63–64). That not only cylinder seals, but also stamp seals of archaic Ur bore this pattern is indicated by item Legrain 1936, 291, displaying an hourglass-checkerboard pattern on a matrix counter-signing an underlying scene with figures of a human (?) and a quadruped standing on hind legs.

Table 14.1. Functional assignment of checkerboard-pattern seals of archaic Ur (impressions on their reverses)

<i>Total count of sealings</i>	<i>Sealings of move-able items</i>	<i>Sealings of immove-able items</i>	<i>Same seal on both moveables & immove-able items</i>	<i>Unidentified sealing carrier</i>
21	7	6	1	7

In view of the fact that scenes of banquets, music, dance and sexual intercourse constituted a unified ideational “package” alluding to the sphere of fertility and procreation force (on this see Winter 2007, and also Romano 2010), we may assign these scenes – with their accompanying motifs – to the theme of fecundity as well.

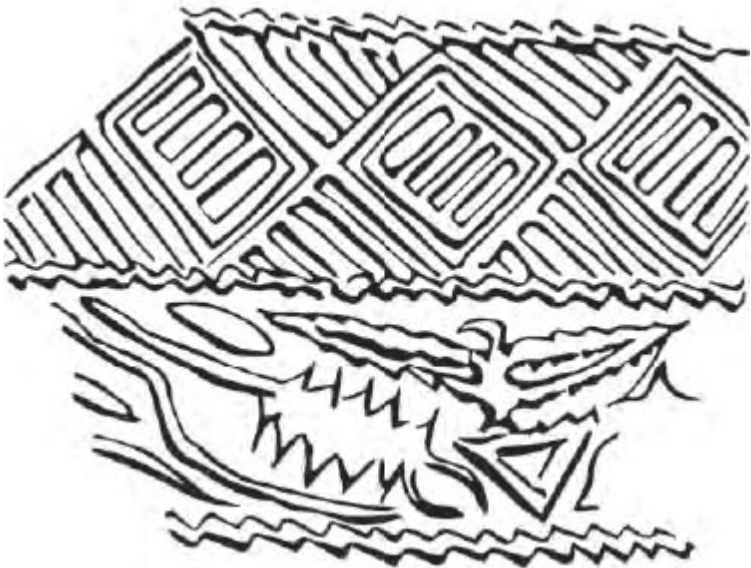


Figure 14.1. Seal impression from the city of Ur, early third millennium, layer SIS 4-5 (after Legrain 1936, 556).



Figure 14.2. Seal impression from the city of Ur, early third millennium, layer SIS 4-5 (after Legrain 1936, 368).

In Legrain 1936, 368 we see a *coitus a tergo* scene, with a female assistant touching the strands of the dishevelled hair of the female participant, and a sitting personage holding a circular object in his or her hand (Fig. 14.2).

The impression bears a counter-signing imprint of a rosette seal. Here our interest focuses on the disc above the couple, filled in with a checkerboard of nine fields. My learned friend and colleague Jiří Prosecký has already noted that the nine-fold division of this disc is likely to correspond to the ninefold division of the later “ark” of Utnapištim of the Gilgamesh epic, built on the principle of likeness to the universe (Prosecký 2008, esp. 8). Moreover, the checkerboard motif implies again a symbolism of fertility and fecundity (Charvát 2005, 45–46, 79–81, 193). In this manner, the whole image can be “read” in the sense that what takes place in it should activate the fertility of the universe. This is a unique instance in which we may directly infer the significance of a scene depicted in an early Sumerian cylinder seal.

The coitus scenes are thus likely to be interpreted not at face value (and definitely not as “coming from the municipal brothel of Ur”, as suggested during one of the *Rencontres Assyriologiques Internationaux*). Rather, these images were records of an activity of cosmic order, activating the fertility of the universe. The act is occasionally shown in connection with architecture, presumably of sacred character. Associated motifs include a scorpion (for the female partner?), possibly a spread eagle (for the male partner? see above), fish and the AN sign (in whatever sense the ancients understood it), and a whole “lump sum” of themes like banquet, harp music and “birthing” (a spread-legged female image), upon which I have already commented.

Conclusions

We may thus conclude that the imagery of the archaic Ur seals does show references to the earlier répertoire of art elements and motifs, as exemplified by the painted pottery of Susa. The connection was apparently not direct – a whole millennium separates the two iconographic thesauri – but may be understood as a testimony of “quotations” from a common fund of ideas, assumptions and symbols not substantially modified by the social transformation resulting in the creation of the first literate civilization in ancient Mesopotamia.

In view of this assumption, we may legitimately suppose that the messages carried by the checkerboard patterns on the seals of archaic Ur, pertaining to the sphere of fertility and force of procreation, may be extended backwards in time, and taken into consideration to interpret the painted pots in prehistory.

Bibliography

- Biggs, R. D. (1966) *Inscriptions from Tell Abu Salabikh*, Oriental Institute Publications 99, Chicago, Oriental Institute of the University of Chicago.
- Boehmer, R. M. (1999) *Uruk – früheste Siegelabrollungen*, Ausgrabungen in Uruk-Warka – Endberichte Bd. 24, Mainz am Rhein, Philipp von Zabern.
- Burrows, E. (1935) *Ur Excavations, texts II: Archaic texts*. London/Philadelphia, British Museum and University Museum, University of Pennsylvania, Philadelphia.
- Charvát, P. (2002) *Mesopotamia Before History*. London/New York, Routledge.
- Charvát, P. (2005) *The Iconography of Pristine Statehood – Painted Pottery and Seal Impressions from Susa, Southwestern Iran*, Prague, Karolinum Press.
- Charvát, P. (2010) Inscriptions on sealings from archaic Ur. In K. Šašková, L. Pecha and P. Charvát (eds) *Shepherds of the Black-headed People – The Royal Office Vis-à-vis Godhead in Ancient Mesopotamia*, 39–73, Plzeň, Západočeská univerzita.
- Dittmann, R. (2006) Bemerkungen zu Ur, Pit F. *Baghdader Mitteilungen* 37, 23–44.
- Englund, R. K., Grégoire, J. P. and Mathews, R. J. (1991) *The ProtoCuneiform Texts from Jemdet Nasr I: Copies, Transliterations and Glossary*, Materialien zu den frühen Schriftzeugnissen des Vorderen Orients = MSVO Bd. 1, Berlin, Gebr. Mann.
- Legrain, L. (1936) *Ur Excavations volume III: Archaic Seal Impressions*, London/Philadelphia, British Museum and University Museum, University of Pennsylvania, Philadelphia.
- Mathews, R. J. (1993) *Cities, Seals and Writing: archaic seal impressions from Jemdet Nasr and Ur*, Materialien zu den frühen Schriftzeugnissen des Vorderen Orients = MSVO Bd. 2, Berlin, Gebr. Mann.
- Prosecký, J. (2008) L'arche comme imago mundi. *Archiv Orientální* 76, 1–14.
- Romano, L. (2010) Who was worshiped in the Abu Temple at Tell Asmar? *KASKAL* 7, 51–65.
- Rova, E. (1994) *Ricerche sui sigilli a cilindro vicino-orientali del periodo di Uruk/Jemdet Nasr*, *Oriens Antiqui Collectio XX*, Roma, Istituto per l'Oriente C. A. Nallino.
- Scott, S. J. (2005) *Figure, Symbol and Sign: semiotics and function of Early Dynastic I cylinder seal imagery from Ur*, Unpublished dissertation, University of Pennsylvania.
- Sürenhagen, D. (1999) *Untersuchungen zur relativen Chronologie Babyloniens und angrenzender Gebiete von der ausgehenden Ubaidzeit bis zum Beginn der Frühdynastisch II-Zeit 1, Studien zur Chronostratigraphie der südbabylonischen Stadtruinen von Uruk und Ur*, Heidelberg, Heidelberger Orientverlag.
- Šašková, K., Pecha, L. and Charvát, P. (eds) (2010) *Shepherds of the Black-headed People – The Royal Office Vis-à-vis Godhead in Ancient Mesopotamia*, Plzeň, Západočeská univerzita.
- UE III: Legrain, Leon (1936) *Ur Excavations volume III: Archaic Seal Impressions*, London/Philadelphia: British Museum and University Museum University of Pennsylvania, Philadelphia.

Winter, I. (2007) Representing abundance: a visual dimension of the agrarian state. In E. Stone (ed.) *Settlement and Society – Essays Dedicated to Robert McCormick Adams*, 117–138, Los Angeles/Chicago, Cotsen Institute of Archaeology, UCLA and Oriental Institute of the University of Chicago.

Electronic sources

Philadelphia Sumerian Dictionary (PSD) accessible: <http://psd.museum.upenn.edu/epsd/index.html>, for the individual entries see <http://psd.museum.upenn.edu/epsd/nepsd-frame.html>, (accessed 36.03.2014).

Abbreviation

ZATU *Zeichenliste der Archaischen Texte aus Uruk*, Berlin, Gebr. Mann.

More than just a pretty face: the meaningful use of painted pottery in the Halaf Period

Marie Hopwood

Abstract

Studies of ancient peoples and their food are often limited to issues of domestication or feasting, with little discussion of the in between times of everyday food sharing. This has created a silence in the archaeological literature about the daily practices of the populations we study. With the Halaf Period we not only lack a discussion of food practices, but the vessels used for consumption have been studied primarily for typology and decoration. Archaeologists use these uniquely painted ceramics to study issues of trade, power and the dissemination of ideas, but we have not examined the act or meaning of eating out of them. For this paper, I expand my previous research on food preparation and community during the Halaf Period occupation of Fıstıklı Höyük, Turkey, to the examination of food consumption as explored through the painted ceramics. While the imagery and decoration of the painted Halaf Period ceramics can vary widely in terms of execution and motif, of note is that some level of decoration is universally practised. This can signify the change of meaning of food once placed in these vessels for consumption, as well as the meaning for the vessel itself as it is actually used.

Introduction

Halaf Period painted pottery from the ancient Near East is “more than just a pretty face”. While the designs themselves may have been considered pretty, they were also steeped in meaningful usage. Yet archaeological discussions of this pottery tend to ignore their actual function as vessels used to facilitate eating and drinking. Rather these

sherds and vessels are used to link the tattered remains of ancient life to a temporal construction of the “Halaf”, replete with benchmark material culture and a place in the timeline of early civilizations. But because we cannot excavate intention, because we have no texts to interpret (however biased their writing might be); the meaningful use of the intricately (though sometimes not skillfully) decorated pottery lies under-developed.

Of interest here is not an aesthetic judgment of skilled potters, or an exposition of power structure based on distribution of painted motifs, or even an exploration of the training of potters in the creation of these meaningful designs. Those topics have been well covered elsewhere (LeBlanc and Watson 1973; Gustavson-Gaube 1981; Castro-Gessner 2008; 2013). Instead, it is suggested here that the painted pottery of the Halaf Period was not meant to be seen as just a pretty face on quotidian plates, but in fact were sites of transformative power. When eating from this type of decorated vessel a person was not simply consuming food, but also experiencing the meaning behind the imagery on the plate held in her or his hands. Depending on the placement and size of the vessel’s decorations, one person could experience the meaning depicted on their own vessel, while also witnessing the meaning of the imagery on the plates held by those in near proximity. In these decorated vessels the meaningful combination of food and imagery meet; shaping the experience of communal eating not only at the feasting-level, but on a daily basis as well.

Through the act of serving and eating food from these vessels the painted designs take on the meaning that they were always intended to. As archaeologists we must move beyond the academic reticence to talk about food and eating outside of food production and feasting studies. Hayden (2001, 24) suggests that the lack of focus on food and taste in archaeological literature could result from some level of embarrassment; the belief being that taste is somehow too “sybaritic” to warrant academic consideration. He writes that “perhaps archaeologists have simply written the study of feasting off as a frivolous type of psychological self-gratification that pleasure-loving individuals engage in, but which is not particularly important” (Hayden 2001, 24). While Hayden’s focus is on issues of feasting, how much more discomfoting must it be to discuss eating in regards to daily consumption?

The importance of food and its consumption for people in the past, as well as for today, should not be undervalued. Eating from painted vessels and sharing food affected the lives of people during the Halaf Period. Through this [chapter I](#) explore the meaning of food, how its

transformative powers affect the vessels it is served in, as well as how these vessels could be “read” during use. Lastly, it is my goal to begin a discussion of how these ideas can be applied to the painted Fine Ware from the Halaf Period site of Fıstıklı Höyük, located in what is today the modern nation of Turkey.

Halaf Period painted pottery

The Halaf Period of the ancient Near East has a number of characteristic material culture types, such as the round tholoi structures, stamp seals and distinctively painted pottery (Azoury *et al.* 1980; Watkins and Campbell 1987; Akkermans 1989; 1993; Merpert and Munchaev 1993a; 1993b; Breniquet 1996; Hijara 1997; Tsuneki and Miyake 1998; Bernbeck and Pollock 2003). Examples of intricately painted pots and plates from the sites of Arpachiyah and Tell Halaf are some of the most beautifully decorated pottery of the ancient world (Mallowan and Rose 1935; von Oppenheim 1943). However, not all of Halaf Period pottery is painted in such a fine style. Numerous sites, such as Fıstıklı Höyük that were occupied for only a few generations, are characterized by intricately (if not technically precise) painted pottery. Even from the earliest occupation phases at Fıstıklı Höyük, when the site was likely used primarily as a tent encampment, when there is no evidence of structures or major site modification, there were sherds of painted pottery recovered (Pollock and Bernbeck 1998; Pollock *et al.* 2001; Bernbeck *et al.* 2002; Bernbeck and Pollock 2003). Thus we see evidence in the Halaf Period of elite personages using finely-crafted and decorated pottery made by trained and talented potters, and at the same time more mobile pastoralists using, not simply displaying, intricately and meaningfully painted pottery as well.

Halaf Period pottery is not the first to be painted, but its decorations are unique and the scale of decoration was unprecedented. It is set apart from that which came before by its varied vessel shapes, the placement of the painted imagery on the vessels, as well as the abstract representations used in decoration. Some of these shapes include: *Trichterrandschalen*, *Büschchen*, cream bowls,

Tall-Necked Jars, Straight-Sided Bowls, Lids, Open Casseroles and Four-Lugged Vessels, to name only a few (Akkermans 1993; Bernbeck and Pollock 2003, 38; Campbell 2007). At the Early Halaf site of Fıstıklı Höyük alone 22 different painted ware shapes were identified (Pollock and Bernbeck 1998; Pollock *et al.* 2001; Bernbeck *et al.* 2002; Bernbeck and Pollock 2003; Campbell 2007, 104; Castro-Gessner 2008; Hopwood 2010).

Characterized by a light background painted with dark, intricate, generally geometric shapes and patterns, Halaf Period painted Fine Ware pottery is some of the most striking of the prehistoric world. The vessels were slipped in buff or cream, with over-painting carried out in black, dark brown or orange-red paints (Gustavson-Gaube 1981, 11; Cruells 1996, 103; Campbell 1998, 41; Castro-Gessner 2008). The effect is a striking monochrome or bichrome design on a neutral background. This characteristic depiction of black imagery on a white background creates a maximum of contrast, causing the imagery to stand out from the background (Nieuwenhuysen this vol.). For the purposes of this discussion, it is not so much the pot that might have stood out from the noise, but the meaning inherent in the symbols used.

The symbols or motifs utilized in Halaf painted pottery are primarily geometric, with some zoomorphic and the rare anthropomorphic figures. While Samarran painted pottery can be decorated with similar types of motifs, Halaf motifs differ in that their depictions tend to be more abstract than the naturalistic Samarran examples (Bernbeck 1994, but see Erdalkiran this vol.; Robert this vol.). Further, rather than being free-formed on the side of a vessel or the motif taking a large, central position such as that seen in the Samarran examples, Halaf motifs are enclosed in horizontal bands encircling a vessel (Akkermans and Le Mièrre 1992, 9). Multiple bands of different decorations can be applied to the same vessel, potentially covering its entire surface. In restricted (often called “closed”) forms the painted decorations are placed predominately on the upper body, beginning at a vessel’s rim and extending down to just below the maximum vessel diameter with the lower body remaining undecorated (Akkermans 1993, Bernbeck and Pollock 2003). Unrestricted (or “open”) vessels, on the other hand, can be painted over both surfaces; interior and exterior (Campbell 1998, 42). Again with the idea that these decorations were meant to be seen and interpreted, the more “open” a vessel, the greater amount of space that could potentially be seen by the person eating from it or by persons sitting near to the vessel.

Even within these general characteristics, Halaf pottery represents a long tradition of production that has appreciable variation between sites, as well as between regions within the larger geographic area of the Halaf tradition (LeBlanc and Watson 1973; Gustavson-Gaube 1981; Campbell 1998, 42; Nieuwenhuysen 2000, 151; Castro-Gessner 2008; 2013). Certain types of motifs are more commonly seen at specific sites, and some characteristic designs like the bucrania

(stylized bull's head) are not present at all Halaf sites (Gustavson-Gaube 1981). Some examples of the painted pottery are exquisite in their design and use of color, while others appear more roughly painted by a person with appreciably less skill (Castro-Gessner 2008). Similar to other aspects of Halaf material culture, the uniqueness of the pottery shapes and of the motifs used in decoration point to specific choices made by a specific group of people rather than to overarching cultural rules.

While the production and decoration of Halaf Period pottery has been thoroughly discussed elsewhere, what is not generally discussed is the usage of these vessels, which is namely to hold food or drink for consumption. To fully explore the use of these painted vessels, the importance of the food they held must also be addressed.

The power of food and the transformative act of eating

Food is an immensely powerful form of material culture; embodying issues of identity, ethnicity, power, gender, celebration, religion, mourning and the list goes on (Appadurai 1981; Siskind 1992; Harbottle 1997; Wilk 2006; Gaytan 2008; Hirsch 2011; Counihan and Van Esterik 2012). This importance of food has been well-recognized in the literature of cultural anthropology, but has been slower to be evaluated in archaeological anthropology outside of feasting studies (Dietler 1990; 1996; 2001; Hayden 1996; Dietler and Herbick 2001; see Atalay and Hastorf 2006 for a notable exception). Yet, this academic reticence is the result of our own, modern cultural biases, not based on the perceived importance (or lack) of food for the people of the past whom we study.

To begin our discussion, food must first be recognized for what it is; a cultural construction. Food is culturally created as separate from things that are simply edible (Lévi-Strauss 1966; 1969; Douglas 1997). For example, there is nothing about dog that renders that animal physically inedible, and there are places around the world where this animal is a common source of protein. The United States is not one of these places. And while, food is a necessity for life, it is generally not eaten solely for survival unless in unusual and often tragic circumstances. Instead, food *actively* creates both individual and community (Atalay and Hastorf 2006, 283 emphasis is mine). It is shaped by culture to reflect individual and group tastes, taboos, habits, relationships, religion and environment. This cultural importance of food is powerful today and was in the past as well.

Archaeological lines of evidence as to what was eaten in the prehistoric past can come from floral and faunal remains; middens or

trash dumps; images painted or incised into pottery and house walls; figurines; and the pottery itself, as well as carbonized residues held within (Hopwood 2010; 2013a; 2013b; Hopwood and Mitra 2012). When dealing with pottery and food studies, a basic assumption is that the coarse wares were used for storage and food preparation, while the fine wares (with thinner walls, more varied shapes and often decorations) were used for serving food and consumption. But what does that actually mean? The word “consumption” somehow sanitizes or dehumanizes the act of eating. When people sit down to eat dinner together they do not simply *consume* food, but instead *share* a meal. This shared experience is often thought of as a space where already formed relationships can be strengthened and new relationships formed (Hopwood 2013b). My goal here is not to idealize the shared meal. Nor do I wish to suggest that even the concept of a “meal,” as we understand it today as a culturally prescribed set of foods eaten at a certain time of day, was realized in the same way in the ancient past. However, to imagine the people we study as simply *consuming* foodstuffs, of eating a list of species like emmer wheat and red deer rather than *food*, is to miss out on the larger humanity of these societies. Hamilakis (1999, 39) describes consumption as an act of incorporation, involving “emotions, pleasures and feelings”. This emotive association of food is a source of its power, not of weakness.

Not only is food powerful in cultural contexts, but both food and the vessels it is served in and eaten from are also transformed through this act. Lévi-Strauss (1966) discussed how food is transformed through the act of cooking; from the raw to the cooked. This is transformational power, moving something from being simply a foodstuff into food. In modern terms this can be seen in the linguistic shift from animal (cow or pig) into meat/food (beef or pork). One is recognized as a food source, the other is thought of as food itself. This transformation embodies cultural meaning. The history of the food, the meanings that the dish embodies, the hands that helped create it, all become a part of the experience of eating the cooked food however humble it may be.

A second form of transformation takes place when food is transferred from cooking vessel to serving vessel where it is changed from “cooked food” into “food that is to be eaten” (Hamilakis 1999). This can be experienced through the simple offering up of food as available to be eaten, possibly in a communal setting, or even through the portioning of food into individual vessels, to name just two possibilities. Yet it is not only the food that is transformed, but the pottery that it is served in as well.

The act of publicly eating from a vessel activates social implications, both within the act of consumption itself, as well as from the vessel used. In any public activity there are multiple and subtle cultural cues observed and acted upon, often without conscious thought. In modern contexts the presence or absence of a wedding ring can indicate a person's relational status; the wearing of certain colors can affiliate an individual with a sports team, a political party or movement; and in different ritual settings the location of a person's seat can indicate social status, familial relationships and gender; as well as other cues that would be lost on someone not familiar with that culture. While at this time we may not know what social cues were being acted on in the sharing of food in the Halaf Period, we cannot assume that these cues did not exist or that they are unknowable.

How then do we move towards the exploration of the meaning of the Halaf Period painted vessels in use? Charvát (this vol.) suggests that the meaning of certain design motifs could be mobilized or activated through the act of eating food from that vessel. Therefore, he suggests, that if a person were to be eating from a vessel decorated with symbols of fertility, the act of eating from that plate could mean: "let the food I eat from this plate fill me with fertility and life". If that type of message is being passed through the use of the painted pottery, its meaning might not only be for the person using the vessel, but for anyone who could "read" the vessel's symbols while in use.

The "reading" of vessels in use

The communication of information through visual cues of color, clothing, decoration and other visual means is not a new idea in archaeology. Wobst (1977) discussed the types of information passed on to individuals based on clothing worn, and his work was impactful on archaeological interpretation. Building on this work, Bowser (2002) conducted ethnoarchaeological research on pottery, imagery and identity in the modern Ecuadorian village of Conumbo. This study incorporates a discussion of the mindful and meaningful decoration and use of pottery that can be helpful in re-imagining the usage of pottery at ancient sites as well. She explores how the pottery and its decorations are actively used and negotiated within the Conumbo community. The usage of Bowser's study here is meant to explore one way that pottery can be "written" and "read", and how this meaning can be transmitted through eating and drinking.

In the isolated village of Conumbo, the local women are the potters for the community and are responsible for the creation and decoration of pottery used there on a daily basis (Bowser 2002; Bowser and

Patton 2004). In these households, local politics are carried out dialectically, often within domestic spaces. As people come to visit and talk, a basic level of hospitality is to serve guests *chicha* (corn beer) prepared by the woman of the household herself. This beer is served in bowls she produced and decorated as well; thus positioning pottery prominently in local politics.

The primary pottery shape discussed by Bowser and Patton (2004) is that of the beer bowl; the shape most commonly identified and used in hospitality to guests. These relatively wide and shallow vessels are formed into three shapes: common, footed and calabash-shaped (Bowser 2002, 233). The bowls are then slipped and painted in red, black and white, with geometric motifs on both interior and exterior surfaces. While to an outsider the designs can appear to belong to a single cultural tradition, there are subtle differences between the potters that are unique to their own styles and that are rife with profoundly personal meaning (Bowser 2002, 228; Bowser and Patton 2004, 176). Based on her analysis, Bowser (2002, 236) found that the interior and exterior motifs depicted different types of information. The interior designs related to the potter's ethnic origins, information imparted with each sip of beer. The exterior designs had a very different meaning, largely related to the potter's political allegiance. Thus the person drinking the beer could "read" the ethnic identity of the household, while those sitting around that person could "read" the political affiliation. Because Conumbo is a relatively small community, it is likely that this knowledge was already apparent to the guests present, but what is seen here is that the transmission of that knowledge in two separate forms was still important to those households. Also important is the fact that though abstract in form, the symbols were clearly understood by those to whom the message was intended.

Central to the dissemination of information from decorated pottery is the ability to "see" or "read" the designs (Nieuwenhuysen this vol.). This visibility relies on two characteristics: the interior or exterior location of the motifs, and the size of the symbols themselves. Beginning with the location of the designs, interior versus exterior placement affects who has the opportunity to see the imagery. Interior designs are primarily visible by those individuals drinking or eating from a vessel, and thus are "read" only by that person. The exterior designs, on the other hand, are largely visible to those people viewing the event, but not holding the vessel. Thus the pottery can be read by multiple audiences simultaneously.

In this way we can begin to think of vessels as functional tools, but

also as communicators of ideological significance. The vessel's shape, particularly the relative restriction of the mouth, its overall size and the depth of the body has a direct effect on the area available for these images. For example, an unrestricted shallow bowl may have only a few centimeters of exterior body space where designs could be easily seen in use, unless the bowl is tipped up to show its lower walls and base. Conversely, the interior surface would have more visible area, at least to the person drinking or eating from that bowl.

A further characteristic of design visibility is the size of the painted symbols themselves. For the visual transmission of ideas, the symbols must be of a size that can be easily seen by the intended audience. For the Conumbo study, Bowser and Patton (2004, 177) used the architectural proxemics proposed by Ramsey and Sleeper (1988) to determine the distance that a person would need to be within, for the decorations on bowls to be clearly seen (Bowser and Patton 2004, 177, fig. 8). Through applying these architectural principles to their data, Bowser and Patton found that painted symbols roughly 1.5–2.5 inches (roughly 4–6 cm) in size could be seen by what Ramsey and Sleeper (1988) describe as the “near public”, or those within 20 feet (6.1 m) of the vessel. To be seen by the “far public”, over 40 feet (12.2 m) from the vessel, the symbols needed to be 4 inches (10 cm) or greater in size.

In the Conumbo study Bowser (2002) tested the ability of the bowls to be “read” by people in close proximity to the pottery by showing photographs of a random selection of painted bowls to Conumbo residents. In every case the viewers were able to accurately identify the political group of the potter. Thus, in daily use the meanings behind the decorations were consciously transmitted to and understood by all people present.

Bowser's study depicts an example of a society utilizing painted pottery beyond simple aesthetics to embody shared cultural meanings. To explore the possibility of this being a helpful way to conceptualize Halaf Period painted pottery, we must first explore whether or not the painted pottery from this period is “readable”. This entails the location of the designs on the vessel, as well as their size or legibility. Also of importance is the space in which the pottery would be used and viewed (Nieuwenhuyse this vol.). To facilitate this discussion, Fine Ware pottery from the Halaf Period site of Fıstıklı Höyük in modern Turkey will be explored ([Fig. 15.1](#)).

Eating and sharing food in the Halaf Period

Fıstıklı Höyük is a small hamlet occupied early in the Halaf Period,

radiocarbon dated to 5850–5750 cal BC (Fig. 15.2) (Pollock and Bernbeck 1998; Pollock *et al.* 2001; Bernbeck *et al.* 2002; Costello 2002; Bernbeck and Pollock 2003; Castro-Gessner 2008; Hopwood 2010). The settlement at Fıstıklı Höyük began as a temporary encampment with minimal modification and underwent many changes over the course of its few generations of occupation, which may have only lasted for 50–100 years before being slowly abandoned. Bernbeck (2008; 2013) suggests that smaller Halaf Period settlements, like Fıstıklı Höyük, functioned as multi-sited communities. These communities utilized the landscape in a more fluid manner than longer occupied sites, with part of the population living at a focal site year round, and other portions occupying sites dispersed across the landscape (Akkermans and Duistermaat 1996; Verhoeven 1999). The dispersed sites could function to move herds around the countryside, as well as to spread food production and procurement for the focal site across a larger area. Just as learning to live in a village required cultural changes (Marcus and Flannery 1996), living in a more mobile society would also require different mechanisms to establish and maintain community relationships. The use of food could be a powerful tool to establish these relationships and to share community identity (Hopwood 2010; 2013a).

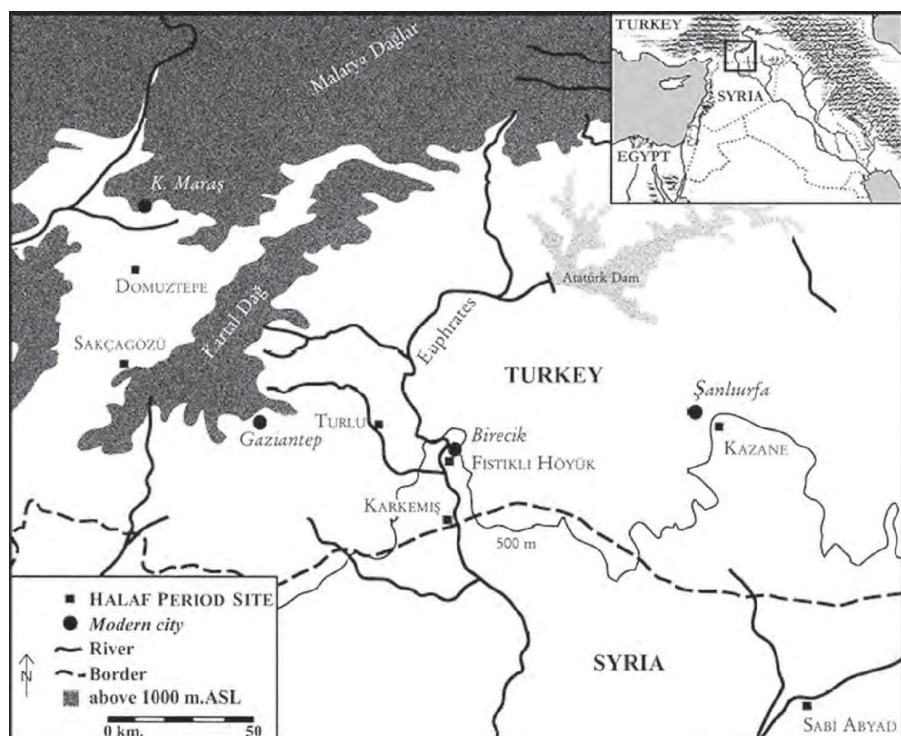


Figure 15.1. Regional map of the modern nations of Turkey and Syria with the location of Fıstıklı

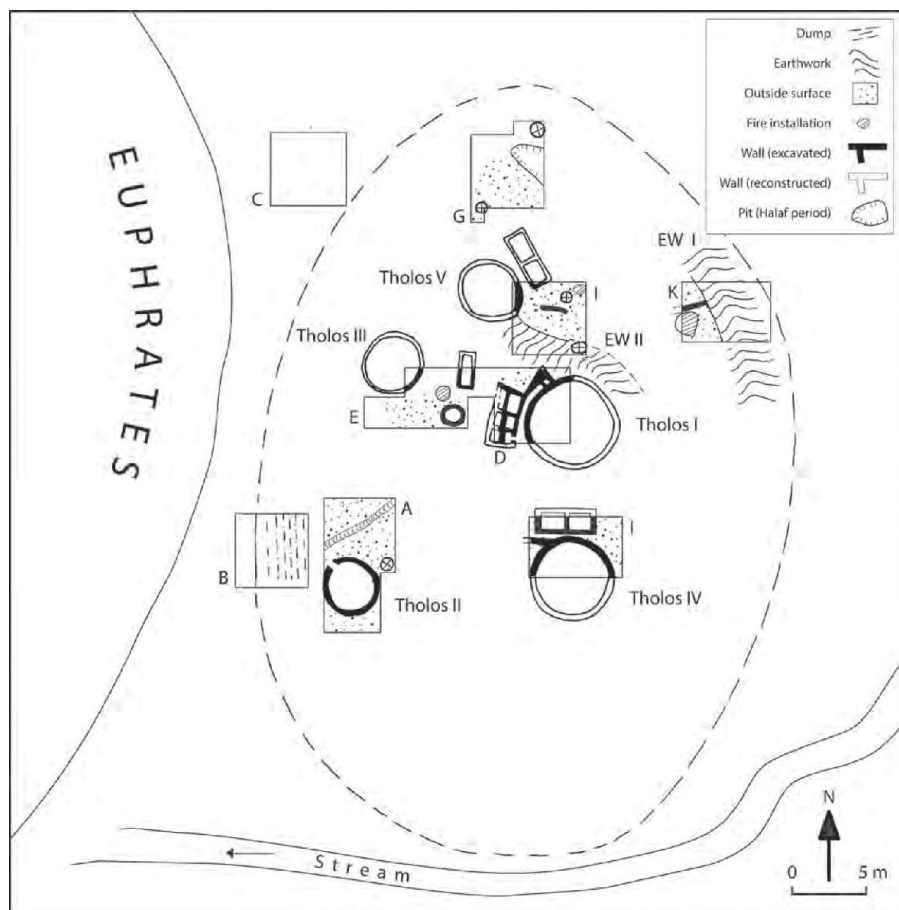


Figure 15.2. The Fıstıklı Höyük settlement as it existed at the height of occupation. Note that the Euphrates River is drawn very near the site, and was likely farther away during the Halaf period. Used with permission from Bernbeck and Pollock (2003, fig. 2).

Even at the earliest occupation of Fıstıklı Höyük as a tent encampment painted Fine Ware pottery sherds were recovered. To put this into context, at its height the community only supported five households. Fıstıklı Höyük was not a site like Tell Halaf, which was occupied for millennia, but instead was lived in for a few generations at most. Though limited in exposed area from excavation, little modification to the area was found dating to the earliest occupation of the site beyond the potential of a shallow trench dug to divert flood waters. Yet a small contingent of people stayed there, cooked and ate there, and eventually added to the site over time, embedding the landscape with hallmark Halaf Period material culture. Of interest here is that even at its beginning, with no evident intent to make that low hill into a home, the people brought with them, used, and broke

painted pottery. This was not eating to simply survive, but even in the outskirts of civilization we have examples of people eating meaningfully.

The Fine Ware pottery from Fıstıklı Höyük encompasses 22 distinctive shapes, with 67 recognizable painted Halaf motifs (Bernbeck and Pollock 2003, 34). Very few of the Fıstıklı Höyük vessels are complete, most having been broken in antiquity. Therefore discussions of complete vessels, and even profiles, can be difficult for this site. Of the Fine Ware shapes, three dominate the assemblage; Tall-Necked Jars, Straight-Sided Bowls and Lids (Bernbeck and Pollock 2003, 38–39). Tall-Necked Jars have a vertical or everted neck that was made separately and then joined to a rounded body. Painted designs are found in the interior rim of these vessels, as well as the exterior rim, neck and shoulder. This is the most common painted shape from the site. Straight-Sided Bowls have gently everted walls moving up from their wide, flat bases. Even with their wide, unrestricted shapes, the interior decoration of these bowls is often limited to the rim. Exterior painting covers the entire vertical surface, and a few examples retained potter's marks on their bases (Bernbeck and Pollock 2003, 39). The Lids are shaped like relatively shallow bowls, but are differentiated by extensive painting on their top. Thus these vessels could have been used to loosely cover or cap other vessels. Bernbeck and Pollock (2003, 39) describe the Lids' decorations as often being divided into four fields. They are left undecorated on their interiors.

From the placement of these designs, visibility of the vessels in use extended into their interiors, but only in a limited fashion. Both restricted and unrestricted vessels have some level of interior painted decoration, but this does not continue down into the vessel's base even with the open, shallow bowls. If the images on these vessels were intended to be read, then the location of the designs would be placed in a visible area. Hence the restricted vessel's interior decoration does not move down below an easily visible (and assessable) area of the vessel. The lack of decoration in the unrestricted Straight-Sided Bowl could suggest that once in use or filled, the interior base of the vessel may not have been visible. If filled with an opaque foodstuff, like a stew or even pieces of roasted meat or vegetables, the base would be covered. Similarly with the Lids, when in use resting on another vessel the interior surface would not be visible and is not decorated. It is the exterior or visible surface that bears the motifs.

The painted designs from Fıstıklı Höyük are predominately geometric motifs painted in brown or black on a cream-slipped field

(Bernbeck and Pollock 2003, 41). This would enable the darker designs to pop out from the lighter base and to be more easily read (Nieuwenhuyse this vol.). Further, as is common in Halaf Period pottery, the designs are often placed in broad horizontal bands. Multiple bands can be present on one vessel, potentially covering its entire exterior surface. The most common geometric motifs found at Fıstıklı Höyük include: cross-hatching, parallel lines, horizontal bands, chevrons, cross-hatched diamonds with dots in the center, “egg and dot” motifs, zigzags and what are called “Kazane patterns” (Fig. 15.3) (Bernbeck and Pollock 2003, 41). A common design theme for the evertedrimmed bowls is that of broad horizontal bands separated by thinner bands of cross-hatched motifs (Bernbeck and Pollock 2003). These bands of motifs were nearly always large enough to enable them to be seen by the near public as defined by Ramsey and Sleeper (1988) and depicted by Bowser and Patton (2004).

At Fıstıklı Höyük there were both interior and exterior spaces where the shared eating of food could have taken place (Pollock 2013). The domestic structures at Fıstıklı Höyük, or tholoi, are relatively small places with the largest having an interior diameter of 6 m (Fig. 15.2). This would allow people, even those sitting at opposite sides of the tholos, to be considered in the near public distance, and symbols 1.5–2.5 inches (3.8–6.3 cm) in size, such as those seen on Fıstıklı Höyük pottery would be recognizable (Ramsey and Sleeper 1988). It should be taken into consideration that the interiors of the Fıstıklı Höyük tholoi are all distinctive, and often the interior space is broken up by the placement of hearths, benches or platforms. This created space, combined with the amount of light supplied either by a fire or by wall or roof openings, would affect the motif’s visibility. What would be created inside the tholos is a smaller, more intimate experience. The idea here is not of a romantic aesthetic, but of a smaller interior, private space. Access and visibility would have been limited. A person is invited into such spaces, or is a part of a group with presumed access or eligibility to this space. This is quite different from shared food events in exterior spaces.

Shared public meals and activities in the exterior spaces were also possible at Fıstıklı Höyük. The use of exterior space at Halaf sites created open, shared space rather than bounding the available space within closed rooms and courtyards as was prevalent during the previous Samarran period (Pollock and Castro-Gessner 2010). The exterior space is therefore more than simply “being outside”, but is shaped differently in the minds of the community. At Fıstıklı Höyük each domestic structure is associated with an exterior storage unit and

oven (Bernbeck and Pollock 2003). This suggests that while individual households could have segregated work areas, these areas were also in full view of the neighbors. This visibility could have encouraged separate households to work together in communal activities (Pollock and Castro-Gessner 2010). Yet it also opens up the possibility and probability of community surveillance and a shared public viewing of activities.

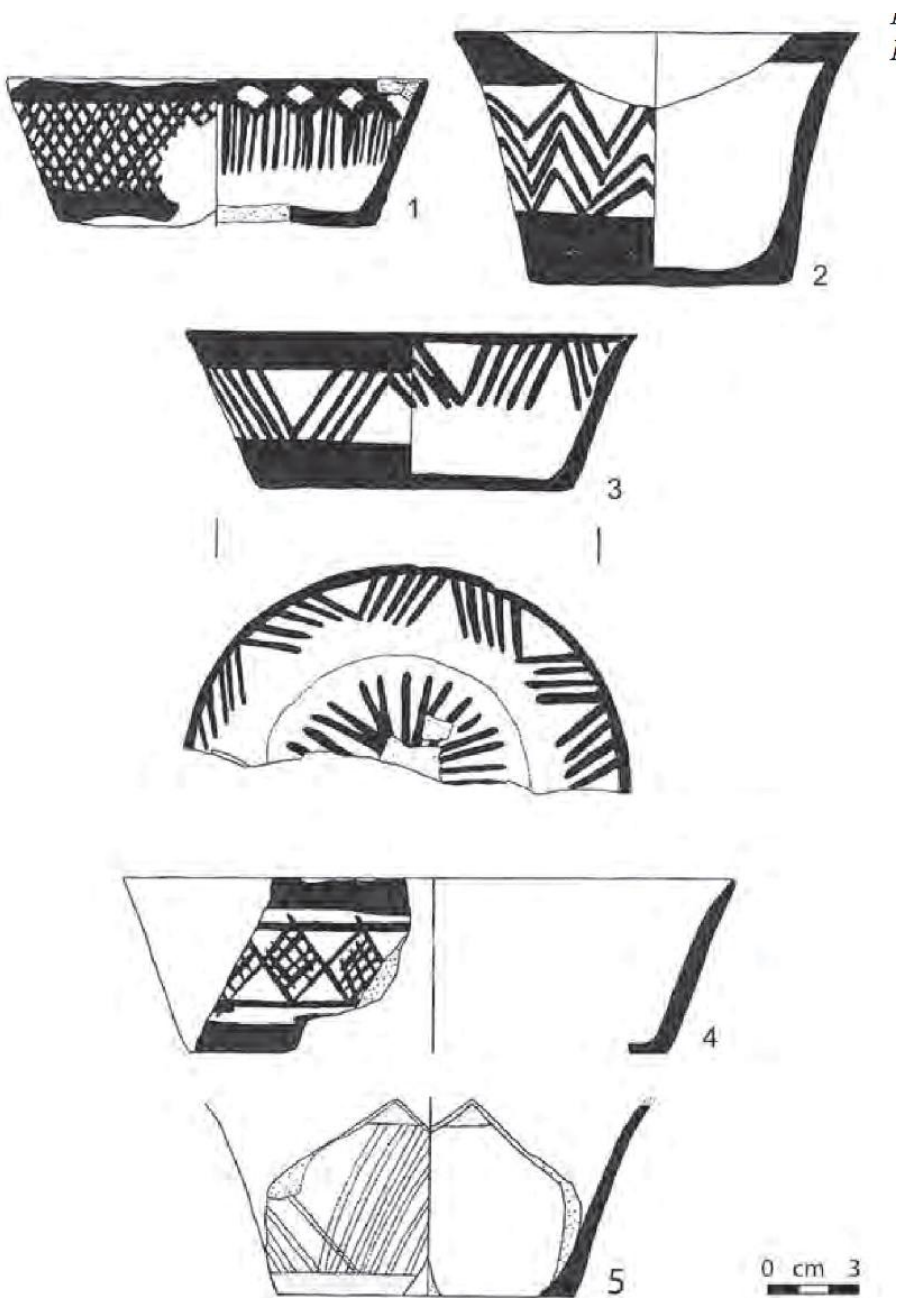


Figure 15.3. Examples of painted Fine Ware pottery from Fıstıklı Höyük.

This visibility of labor and shared activities in the exterior spaces of Fıstıklı Höyük could also be explored in relation to the visibility of painted motifs on the pottery. While none of the exterior work areas were excavated in their entirety, many of the open areas are broken

up by changes in the constructed space. Some examples of these spatial breaks include ovens, hearths and earthworks. The unobstructed space may only extend some six meters before interruption, creating space for public gatherings that would fall within the near public viewing distance (Ramsey and Sleeper 1988). Much beyond about eight meters in distance, and the painted motifs, as well as vessel bodies, must be significantly larger, four inches and greater in size (Ramsey and Sleeper 1988). The Fıstıklı Höyük materials may not have been large enough to be viewed from this distance, but the site was not large enough that these sizeable gatherings to be necessary.

It is evident that the placement and size of the motifs on the vessels would have allowed them to be read by the near public viewing distance. This same proximity of persons to vessels could have been facilitated in private sharing of food and or drink inside the tholoi, as well as in the exterior, public spaces. The potters created designs intended to be seen and to be understood. Their vessels were clearly legible, and likely intelligible to those people using them. Thus we see the acts of eating and drinking being shaped by the community through the use of meaningful pottery, and hence of meaningful experience.

Conclusion

In the context of the Halaf Period painted vessels, even the more unskillful examples were not simple vessels thrown together as expedient tools to facilitate eating. If that were the case, what need for decorations at all? Even at the earliest phase of occupation at Fıstıklı Höyük painted vessels were in use along with the unpainted coarse wares. If there were no meaning behind the food, its consumption and/or sharing, there would have been no need for painted pottery. Instead, even at the smaller sites, the vessels used for eating were thoughtfully and intentionally designed, and were thus laden with meaning. Nor was this meaning hidden from the Fıstıklı Höyük community, but in the site's relative isolation the meaning would have been apparent to those sharing in the meals.

The function of Fıstıklı Höyük changed over the few generations that it was occupied; from tent encampment to focal site through abandonment. As the site became a locus of community, the needs of the people living there would have changed. As discussed by Marcus and Flannery (1996), there are cultural mechanisms necessary in order for a village to work. These mechanisms are different from those used to facilitate more mobile hunter-gatherer lifestyles. If the goal is

to live in one place, what keeps people from voting with their feet and leaving? The sharing of food can be one powerful tool in maintaining, mitigating and creating community.

The similarities in material culture across the Halaf region suggest a shared set of ideas, or potentially the popular culture of the time. There were certain design styles that were thought of as pleasing or the “right way to do things” and this was repeated throughout settlements. It is also clear that with the incredible amount of variation in the motifs used, even at smaller sites like Fıstıklı Höyük, the amount and types of information that could be communicated through painted pottery was great. What is also clear is that the design and decorating of these vessels was intentional. The motifs were scaled so that they could be read by those using the vessels and by those in close proximity. Hence through an examination of the use of painted pottery at Halaf Period sites this pottery can emerge as more than just a pretty face, but instead as a meaningful locus of communication carried out through the shared experience of food.

Bibliography

- Akkermans, P. M. M. G. (ed.) (1989) *Excavations at Tell Sabi Abyad: Prehistoric Investigations in the Balikh Valley, Northern Syria*, British Archaeological Report S468, Oxford, British Archaeological Reports.
- Akkermans, P. M. M. G. (1993) *Villages in the Steppe: Late Neolithic settlement and subsistence in the Balikh Valley, northern Syria*, International Monographs in Prehistory, Michigan, Ann Arbor.
- Akkermans, P. M. M. G. and Duistermaat, K. (1996) Of storage and nomads: the sealings from Late Neolithic Sabi Abyad, Syria. *Paléorient* 22/2, 17–44.
- Akkermans, P. M. M. G. and Le Mièrre, M. (1992) The 1988 excavations at Tell Sabi Abyad, a later Neolithic village in northern Syria. *American Journal of Archaeology* 96/1, 1–22.
- Appadurai, A. (1981) Gastro-politics in Hindu South Asia. *American Ethnologist* 8, 494–511.
- Atalay, S. and Hastorf, C. A. (2006) Food, meals, and daily activities: food habitus at Neolithic Çatalhöyük. *American Antiquity* 71/2, 283–319.
- Azoury, I., Bergman, C., Gustavson-Gaube, C. E., al-Radi, S., Seeden, H. and Uerpmann, H.-P. (1980) A Stone Age village on the Euphrates: reports from the Halafian settlement at Shams ed-Din Tannira: AUB Rescue Excavations 1974. *Berytus* 28, 87–144.
- Bernbeck, R. (1994) *Die Auflösung der Hauslichen Produktionsweise: Das Beispiel Mesopotamiens*, Berlin, Dietrich Reimer.
- Bernbeck, R. (2008) An archaeology of multi-sited communities. In H. Barnard and W. Wendrich (eds) *The Archaeology of Mobility: Old World and New World nomadism*, 43–77, Los Angeles, Cotsen Institute of Archaeology.
- Bernbeck, R. (2013) Multisited and modular sites in the Halaf tradition. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 51–62, Turnhout, Brepols.
- Bernbeck, R. and Pollock, S. (2003) The biography of an Early Halaf village: Fıstıklı Höyük 1999–2000. *Istanbul Mitteilungen* 53, 9–77.
- Bernbeck, R., Pollock, S., Lepinski, S., Allen, S., Castro Gessner, A. G., Costello, S. K., Costello, R., Foree, M., Gleba, M., Goodwin, M., Nakamura, C. and Niebuhr, S. (2002) Preliminary report on the 2000 season at Fıstıklı Höyük. In N. Tuna, J. Öztürk and J. Velibeyoğlu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs: Activities in 2000*, 1–39, Ankara, Middle East Technical University, Centre for Research and

- Assessment of the Historic Environment (TAÇDAM).
- Bowser, B. J. (2002) From pottery to politics: an ethnoarchaeological study of political factionalism, ethnicity, and domestic pottery style in the Ecuadorian Amazon. *Journal of Archaeological Method and Theory* 7/3, 219–248.
- Bowser, B. J. and Patton, J. Q. (2004) Domestic spaces as public places: an ethnoarchaeological case study of houses, gender, and politics in the Ecuadorian Amazon. *Journal of Archaeological Method and Theory* 11/2, 157–181.
- Breniquet, C. (1996) *La Disparition de la Culture de Halaf: Les Origines de la Culture d'Obeid dans le Nord de la Mesopotamie*, Paris, Recherche sur les Civilisations.
- Campbell, S. (1998) Problems of definition: the origins of the Halaf in north Iraq. In M. Lebeau (ed.) *Landscape, Archaeology, Settlement. Subartu IV*, Volume I, 39–52, Turnhout, Brepols.
- Campbell, S. (2007) Rethinking Halaf chronologies. *Paléorient* 33/1, 103–136.
- Castro-Gessner, A. G. (2008) *The Technology of Learning: painting practices of Early Mesopotamian communities of the 6th millennium, B.C.*, unpublished PhD. thesis, Binghamton University.
- Castro-Gessner, A. G. (2013) Sequencing practices, revealing traditions: a case study on painters' brushwork. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 125–134, Turnhout, Brepols.
- Costello, S. K. (2002) *Tools of Memory: investigation of the context of information storage in the Halaf Period*, unpublished PhD thesis, Binghamton University.
- Counihan, C. and Van Esterik, P. (eds) (2012) *Food and Culture: a reader*, New York, Routledge.
- Cruells, W. (1996) La cerámica pintada Halaf. In M. Molist (ed.) *Tell Halula (Siria). Un yacimiento Neolítico del valle medio del Eufrates, campañas de 1991 y 1992*, 99–114, Madrid, Ministerio de Educación y Cultura, Dirección General de Bellas Artes y Bienes Culturales, Instituto del Patrimonio Histórico Español.
- Dietler, M. (1990) Driven by drink: the role of drinking in the political economy and the case of Early Iron Age France. *Journal of Anthropological Archaeology* 9, 352–406.
- Dietler, M. (1996) Feasts and commensal politics in the political economy: food, power, and status in prehistoric Europe. In P. Wiessner and W. Schiefenhovel (eds) *Food and the Status Quest: an interdisciplinary perspective*, 87–125, Providence, Bergahn Books.
- Dietler, M. (2001) Theorizing the feast: ritual of consumption, commensal politics, and power in African politics. In M. Dietler and B. Hayden (eds) *Feasts: archaeological and ethnographic perspectives on food, politics, and power*, 65–114, Washington DC, Smithsonian Institution Press.
- Dietler, M. and Herbick, I. (2001) Feasts and labor mobilization: dissecting a fundamental economic practice. In M. Dietler and B. Hayden (eds) *Feasts: archaeological and ethnographic perspectives on food, politics and power*, 240–264, Washington DC, Smithsonian Institution Press.
- Douglas, M. (1997) Deciphering a meal. In C. Counihan and P. Van Esterik (eds) *Food and Culture*, 36–54, New York, Routledge.
- Gaytan, M. S. (2008) From sombreros to sincronizadas: authenticity, ethnicity, and the Mexican restaurant industry. *Journal of Contemporary Ethnography* 37, 314–341.
- Gustavson-Gaube, C. (1981) Shams Ed-Din Tannira: the Halafian pottery of Area A. *Berytus* 29, 9–182.
- Hamilakis, Y. (1999) Food technologies/technologies of the body: the social context of wine and oil production and consumption in Bronze Age Crete. *World Archaeology* 31/1, 38–54.
- Harbottle, L. (1997) Fast food/spoiled identity: Iranian migrants in the British catering trade. In P. Caplan (ed.) *Food, Health, and Identity*, 87–110, London, Routledge.
- Hayden, B. (1996) Feasting in prehistoric and traditional societies. In P. Wiessner and W. Schiefenhovel (eds) *Food and the Status Quest: an interdisciplinary perspective*, 127–146, Providence, Bergahn Books.
- Hayden, B. (2001) Fabulous feasts: a prolegomenon to the importance of feasting. In M. Dietler and B. Hayden (eds) *Feasts: archaeological and ethnographic perspectives on food, politics, and power*, 23–64, Washington DC, Smithsonian Institution Press.
- Hijara, I. (1997) *The Halaf Period in Northern Mesopotamia*, Edubba 6, London, NABU

- Hirsch, D. (2011) Hummus is best when it is fresh and served by Arabs: the gourmetization of hummus in Israel and the return of the oppressed Arab. *American Ethnologist* 38/4, 617–630.
- Hopwood, M. (2010) *Creating Community: food preparation and community cohesion at the Halaf site of Fıstıklı Höyük, Turkey*, unpublished PhD. thesis, Binghamton University.
- Hopwood, M. (2013a) Food, community and the archaeological past: creating community during the Halaf Period at Fıstıklı Höyük, Turkey. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 183–190, Turnhout, Brepols.
- Hopwood, M. (2013b) Consuming the past: sustenance, taste, and the shared embodiment of food preparation. In J. Day (ed.) *Archaeology of the Senses*, Carbondale, Southern Illinois University Press.
- Hopwood, M. and Mitra, S. (2012) Feeding households: a multiproxy method for analysis of food preparation in the Halaf Period, at Fıstıklı Höyük, Turkey. In B. J. Parker and C. P. Foster, (eds) *New Perspectives in Household Archaeology*, 219–246. Winona Lake, Eisenbrauns.
- LeBlanc, S. A. and Watson, P. J. (1973) A comparative statistical analysis of painted pottery from seven Halafian Sites. *Paléorient* 1, 117–133.
- Lévi-Strauss, C. (1966) The culinary triangle. *Partisan Review* 7/6, 586–595.
- Lévi-Strauss, C. (1969) *The Raw and the Cooked*, New York, Harper and Row.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2/1, 1–178.
- Marcus, J. and Flannery, K. V. (1996) *Zapotec Civilization: how urban society evolved in Mexico's Oaxaca valley*, London, Thames and Hudson.
- Merpert, N. Y. and Munchaev, R. M. (1993a) Yarim Tepe II: the Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization: Soviet excavations in northern Iraq*, 128–162, Tucson, University of Arizona Press.
- Merpert, N. Y. and Munchaev, R. M. (1993b) Yarim Tepe III: the Halaf levels. In N. Yoffee and J. J. Clark (eds) *Early Stages in the Evolution of Mesopotamian Civilization: Soviet excavations in northern Iraq*, 163–206, Tucson, University of Arizona Press.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur headwaters. In B. Lyonnet (ed.) *Prospection archeologique du Haut-Khabur occidental (Syrie du nord-est)* I, 151–260, Beirut, Institut Francais d'Archeologie du Proche-Orient.
- Pollock, S. (2013) Defining a Halaf tradition: the construction and use of space. In O. P. Nieuwenhuyse, R. Bernbeck, P. M. M. G. Akkermans and J. Rogash (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 171–182, Turnhout, Brepols.
- Pollock, S. and Bernbeck, R. (1998) Fıstıklı Höyük 1998: systematic survey and sounding. In N. Tuna and J. Öztürk (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs: Activities in 1998*, Ankara, Middle East Technical University, Centre for Research and Assessment of the Historic Environment (TAÇDAM).
- Pollock, S. and Castro-Gessner, A. G. (2010) Engendering communities: the contexts of production and consumption in Early Mesopotamian villages. In S. Terendy, N. Lyons and M. Janse-Smekal (eds) *Que(e)rying Archaeology*, 240–249, Calgary, Archaeological Association of the University of Calgary.
- Pollock, S., Bernbeck, R., Allen, S., Castro Gessner, A. G., Costello, R., Costello, S. K., Foree, M., Lepinski, S. and Niebuhr, S. (2001) Excavations at Fıstıklı Höyük, 1999. In N. Tuna, J. Öztürk and J. Velibeyoğlu (eds) *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs: Activities in 1999*, 1–63, Ankara, Middle East Technical University, Centre for Research and Assessment of the Historic Environment (TAÇDAM).
- Ramsey, C. and Sleeper, H. (1988) *Architectural Graphic Standards*, New York, Wiley.
- Siskind, J. (1992) The invention of thanksgiving: a ritual of American nationality. *Critique of Anthropology* 12/2, 167–191.
- Tsuneki, A. and Miyake, Y. (1998) *Excavations at Tell Umm Qseir in the Middle Khabur Valley, Northern Syria*, Tsukuba, University of Tsukuba.
- Verhoeven, M. (1999) *An Archaeological Ethnography of a Neolithic Community: space, place and social relations in the burnt village at Tell Sabi Abyad, Syria*, Leiden/Istanbul, Netherlands

- Historisch-Archaeologisch Instituut in het Nabije Oosten.
- von Oppenheim, M. (1943) *Tell Halaf I: Die Prähistorische Funde, Bearbeitet von Hubert Schmidt*, Berlin, de Gruyter.
- Watkins, T. and Campbell, S. (1987) The chronology of the Halaf Culture. In O. Aurenche, J. Evin and F. Hours (eds) *Chronologies in the Near East, Relative Chronologies and Absolute Chronology 16,000–4,000 BP*, 427–464, British Archaeological Report S379. Oxford, British Archaeological Reports.
- Wilk, R. (ed.) (2006) *Fast Food/Slow Food: the cultural economy of the global food system*, New York, AltaMira Press.
- Wobst, M. H. (1977) Stylistic behavior and information exchange. *Anthropological Paper* 61, 317–342.

Decoration of Neolithic pottery in the northern Levant: a view from the Rouj basin

Takahiro Odaka

Abstract

Excavations in the Rouj basin have provided a detailed ceramic sequence for the Neolithic northern Levant. Throughout the Late Neolithic period, the pottery assemblage in this region is dominated by Dark-faced Burnished Ware (DFBW). In this category we could observe the development of pottery decoration characteristic for the assemblage. While no decoration at all is observed among the oldest potsherds in the early El-Rouj 2a period, various kinds of impressions were frequently applied on the DFBW in the succeeding late El-Rouj 2a and El-Rouj 2b periods. Equally, in El-Rouj 2c period, when decorated pottery as a whole declined, impressing remained the dominant method for decorating pottery. In addition, painting and pattern-burnishing appeared in this period for the first time, possibly in relationship to the Samarra painted pottery in the east. However, painting never became popular even in the succeeding El-Rouj 2d period, which was contemporary with the Early Halaf in Upper Mesopotamia. Instead pattern-burnishing became the most common method of decoration. The change from impressing to pattern-burnishing suggests strong influence of Halaf Fine Ware on local pottery production, as is also reflected in changes in the vessel shapes for the DFBW. On the other hand, the fact that painting was hardly adopted by the DFBW potters demonstrates the persistence of local traditions of pottery production in the northern Levant. Local communities preferred dark-coloured surfaces for their “fine ware”.

Introduction

When it comes to discussing Late Neolithic painted pottery from the ancient Near East, at first sight the northern Levant would hardly be considered a major location. In this region there never was so much Samarra or Halaf painted pottery, arguably the two most famous painted pottery styles in the prehistoric Near East. By contrast, the so-called Dark-Faced Burnished Ware (DFBW) dominated local ceramic assemblages in this region throughout the Late Neolithic period. The local pottery tradition of the northern Levant was quite different from that of Mesopotamia, the heartland of Samarra or Halaf pottery. Upon closer scrutiny, however, which recent archaeological work in the region is now making possible, we may begin to observe intriguing similarities with, and influences from, developments in Upper Mesopotamia. DFBW demonstrated a unique local style of decorated pottery, which to some degree may be understood as a response to contemporaneous styles in Upper Mesopotamia.

This paper shall first give an overview of the changes in pottery decoration in the Late Neolithic northern Levant, referring to materials recently recovered from the Rouj basin in northwestern Syria. Second, the manner of painting and other methods of decoration in this region shall be compared with those of Mesopotamia to examine the contrasting pottery traditions between the two regions. I shall conclude with suggesting two explanations, not mutually exclusive, for these contrasts: the conservatism of the technological choice following the local pottery tradition, and, second, the symbolic role of ceramic style as the expression of distinct social identities.

Decoration of Neolithic pottery in the Rouj basin

For decades, Neolithic studies in the northern Levant have relied on the results of the first Amuq expedition in the 1930s (Braidwood and Braidwood 1960). However, recent excavations in the Rouj basin have offered significant new data, including a detailed ceramic sequence (Fig. 16.1). In addition to general surveys of the basin area, sounding excavations at Tell Aray 1, Tell Aray 2, Tell Abd el-Aziz and Tell el-Kerkh 2 were conducted from 1990 to 1992. They resulted in a proposed regional chronology of the Rouj basin (Tsuneki 1993; Iwasaki *et al.* 1995; Iwasaki and Tsuneki 2003). Subsequently, Tell el-Kerkh has been excavated again by University of Tsukuba and the Directorate-General of Antiquities and Museums in Syria since 1997. Neolithic occupations have been found mainly in the central area, the north-west area and the east trench of Tell Ain elKerkh, the northern mound of the three belonging to Tell el-Kerkh. These excavations have

resulted in a vast amount of Neolithic materials, contributing to further understanding of the development of pottery in this region (Tsuneki *et al.* 1997; 1998; 1999; 2000; 2007).

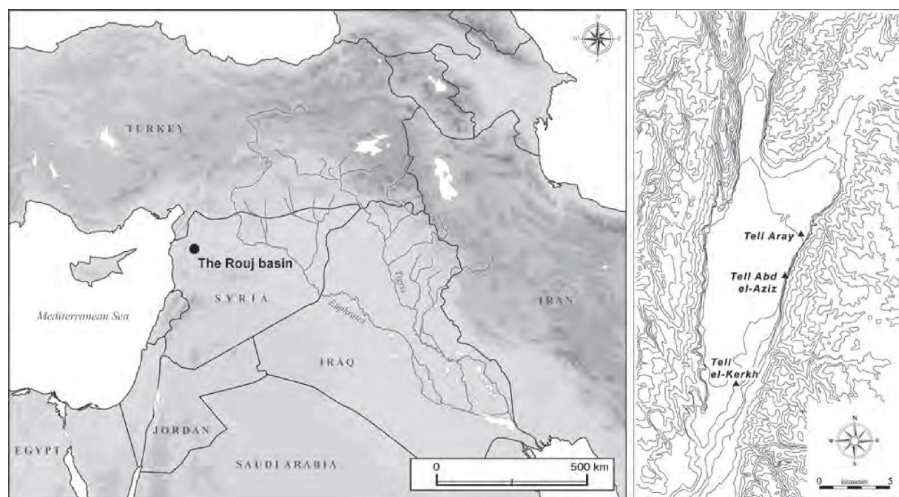


Figure 16.1. Location of the Rouj basin and excavated prehistoric sites.

The Rouj chronology consists of El-Rouj 1 (Pre-Pottery Neolithic B) to El-Rouj 6 (Early Bronze Age) periods. The Late Neolithic corresponds to the El-Rouj 2 period, which is divided into four sub-periods (El-Rouj 2a to El-Rouj 2d). Originally, these sub-periods were identified separately at the four sites, although they apparently demonstrated the complete sequence of El-Rouj 2 period. In recent excavations at Tell Ain el-Kerkh, the central area, which was arranged on the top of the mound, yielded materials of El-Rouj 2c and El-Rouj 2d periods, and the uppermost layer of the northwest area is dated to the El-Rouj 2b period. On the other hand, the east trench adjoining the east side of the central area offered a long sequence connecting two other excavated areas, from El-Rouj 2b to El-Rouj 2d (Table 16.1). The assemblages and decorations of El-Rouj 2 pottery are summarized as follows.

Decoration of Dark-Faced Burnished Ware

The assemblage of El-Rouj 2a period was only found in layers 5–6 of Tell el-Kerkh 2. It consists almost entirely of Kerkh Ware, which represents the oldest ware-type of pottery in the Northern Levant (Fig. 16.2; also see Tsuneki and Miyake 1996) and DFBW. In addition few pieces of Coarse Ware occur. The pottery from layer 6 did not exhibit any decorations, while in layer 5, DFBW was often decorated with nail impressions or pinched decorations (Fig. 16.3, 1–5). Although Kerkh

Ware and Coarse Ware were always plain, DBFW demonstrated the first appearance of pottery decoration in the Rouj basin.

In El-Rouj 2b period, DFBW became dominant in the pottery assemblage. On the other hand, Kerkh Ware declined and then entirely disappeared during the late phase of this period. The statistical data from the east trench and Square E311 of the central area at Tell Ain el-Kerkh demonstrates that DFBW was always dominant in the pottery assemblage from El-Rouj 2b to El-Rouj 2d periods. Based on the number of recovered rim-sherds, this type accounted for more than two-thirds of the total assemblage (Fig. 16.3). Most of the decorated pottery is classified as DFBW, which we believe functioned as a category of containers for display, what we may call “fine ware”.

Table 16.1. Neolithic chronology of the Rouj basin

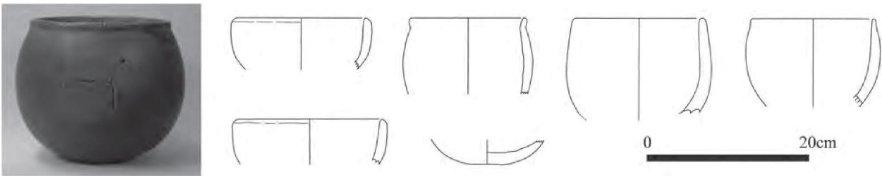
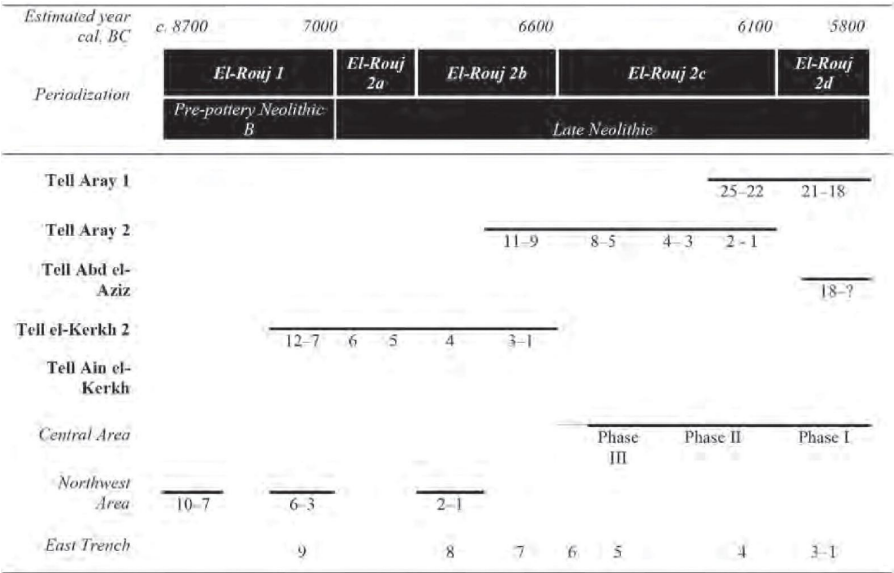


Figure 16.2. Kerkh Ware. Layer 6 of Tell el-Kerkh 2 (after Iwasaki and Tsuneki 2003, fig. 54).

Thus, the development of pottery decoration could be mostly observed in DFBW. Following the first appearance of decorated DFBW in the late phase of El-Rouj 2a, the ratio of decorated ceramics quite abruptly reached a peak in the succeeding early phase of El-Rouj 2b

period. As for the methods of decoration, however, not so much diversity is observed. The decoration at this stage only consisted of various types of impressions (Fig. 16.4, 6–14). Based on the number of rim sherds, more than one-third of DFBW were decorated with various types of impressions, such as nail impressions, comb impressions and pinched decorations (Fig. 16.5). In the late phase of the El-Rouj 2b period, this ratio decreased to approximately 25%. Incision and appliqué were added to the decoration methods, but were still very rare. Decorated DFBW sharply declined in El-Rouj 2c period, with only 3% of DFBW rim sherds being decorated. However, a few new methods of decoration such as pattern-burnishing and painting first appeared in the late phase of this period (Fig. 16.4, 19). Impression remained the most dominant method of decoration (Fig. 16.4, 15–18). While impression decreased to less than 2% of DFBW rim sherds in the succeeding El-Rouj 2d period, pattern-burnishing with geometric motifs became very common and was seen in 7–8% of the rim sherds (Fig. 16.4, 22–28). In addition, very few specimens with red painting or incision were among DFBW in this period. Decorated DFBW slightly increased to c. 8–9% in total.

Decoration of Coarse Ware

Decorations can also be observed in the Coarse Ware, which was numerically the second most common ware-type throughout the Late Neolithic in the Rouj basin. Incision, appliqué and impression were observed beginning in the El-Rouj 2b period, and painting was added in the late phase of El-Rouj 2c period (Fig. 16.6). However, the number of decorated specimens was quite limited, with fewer items than DFBW. Figure 16.7 demonstrates the ratio of decorated specimens in diagnostic Coarse Ware sherds, showing no particular trend. This statistic overestimates the proportion of decorated sherds, however, compared with the ratio based on the number of rim sherds. In fact, we could identify only two decorated pieces among 356 Coarse Ware rim sherds recovered from the east trench, and seven decorated pieces among 505 rim sherds from Square E311 of the central area, that is, no more than about 1% of the bulk.

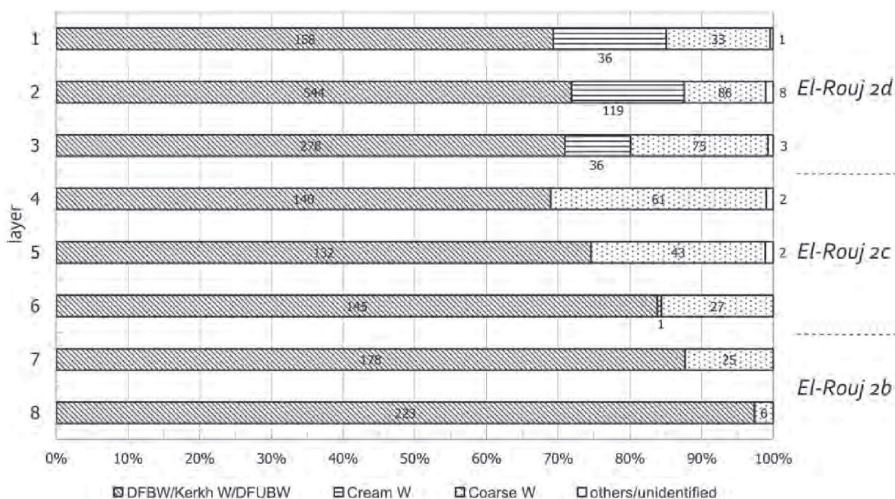


Figure 16.3. Pottery assemblage of East Trench at Tell Ain el-Kerkh, based on the number of rim sherds.

Statistical data indicates that the decoration of Coarse Ware was relatively common in the late phase of the ElRouj 2b period and the early phase of El-Rouj 2c period. Nevertheless, decorated Coarse Ware was scarce among potsherds throughout the Late Neolithic period.

Decoration of other ware-types

The two major ware-types of DFBW and Coarse Ware together accounted for more than 80% of the types in the total assemblage from the El-Rouj 2 period. In other words, the amount of other ware-types was generally limited. Interestingly enough, these other ware categories were often decorated.

Beginning in the late phase of the El-Rouj 2b period, small amounts of Plaster-coated Ware are found. On the basis of its fabric we may distinguish two types: mineral-tempered clay like DFBW and plant-tempered clay like Coarse Ware. Although the former type disappeared in the El-Rouj 2d period, the white-coloured surface of both types was frequently decorated with red painted geometric motifs (Fig. 16.8/Colour Pl. 24).

Further, the late phase of El-Rouj 2c period saw the first appearance in the Rouj of Samarra painted pottery, which is assigned into a category of Fine Painted Ware here. However, the numbers of sherds of this group remained extremely limited, with only one specimen identified among 11,634 rim sherds from Phase II of the central area (cf. Odaka 2003). This suggests that Fine Painted Ware recovered from the Northern Levant was not locally made but imported from the east, i.e. from the Upper Mesopotamian plains.

Simultaneously, two other painted ware-types were introduced. One of those would seem to resemble the so-called Orange Fine Ware from Syrian Mesopotamia (Le Mière and Nieuwenhuyse 1996). The second was Cream Ware, characterized by a cream to orange-buff surface and compact fabric on which lustrous red to brown wash or geometric designs in red paint are generally observed. Both categories were generally as uncommon as the Fine Painted Ware. However, Cream Ware became more common in the succeeding El-Rouj 2d period, when it represented 10–20% of the total assemblage. Halaf or Halaf-related painted pottery, classified as part of Fine Painted Ware, finally, was found in this period as well, although the numbers remained very limited.

The role of decorated pottery in the northern Levant

So with regard to painted Late Neolithic pottery, the recent excavations in the Rouj basin show that the oldest specimen was found with Plaster-coated Ware in the final El-Rouj 2b period. Geometric designs such as triangles filled with parallel oblique lines in red paint are reminiscent of the Proto-Hassuna or Archaic Hassuna painted pottery traditions of Upper Mesopotamia, although as yet no unequivocal evidence for direct contacts between these regions exists. Painted decoration was seen on only very few items in the ceramic collection, and obviously was limited to a specific ware-type in this period.

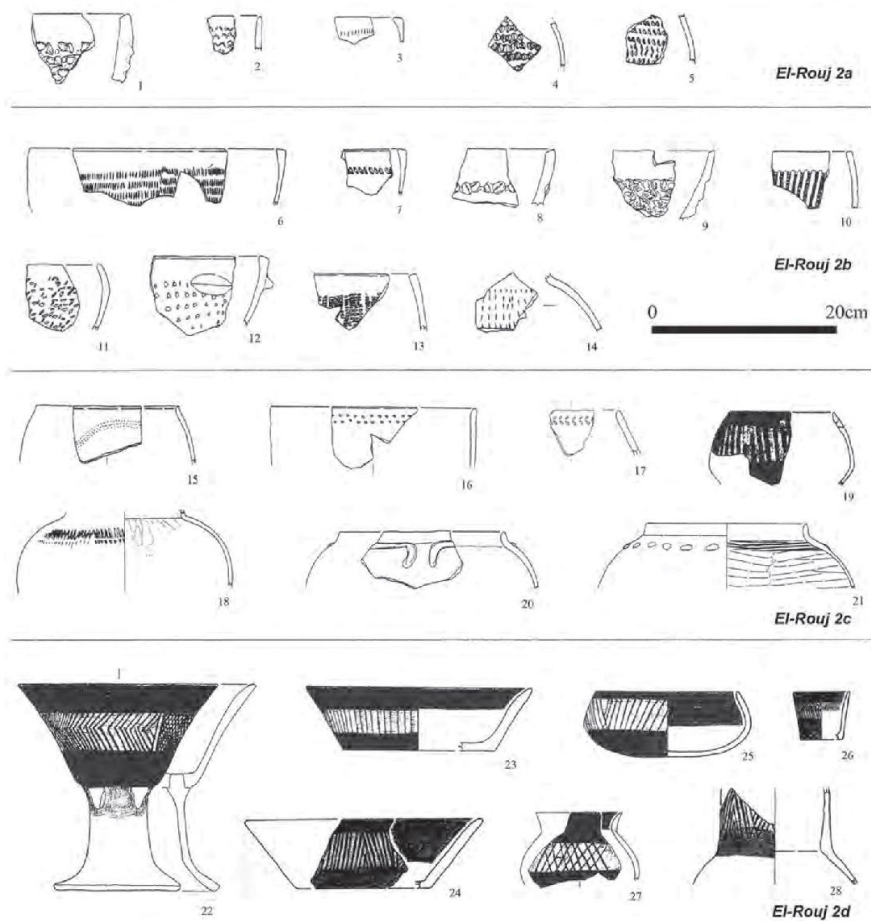


Figure 16.4. DFBW with decoration. El-Rouj 2a to El-Rouj 2d periods (after Iwasaki and Nishino 1991; Tsuneki et al. 1997; 1998; 1999; 2000).

However, this situation changed when Samarra painted pottery appeared in Upper Mesopotamia. It can be estimated that this phenomenon manifested itself for the first time in the Northern Levant during the late El-Rouj 2c period when a few items reached our area as imports. Samarra painted pottery seems fundamentally different from the older painted pottery. The painted designs and motifs were much more complex, elaborated and sophisticated. The carefully smoothed, light-coloured surfaces offered a suitable “canvas” for painted compositions. The display of painted decoration appears to have been an important function of Samarra-style painted pottery. Subsequently the Halaf painted Fine Ware pottery had similar characteristics. These qualifications led us to adopt the term “Fine Painted Ware” for both groups of Neolithic pottery. In the Rouj basin it can easily be distinguished from the coarser, local groups of painted

pottery.

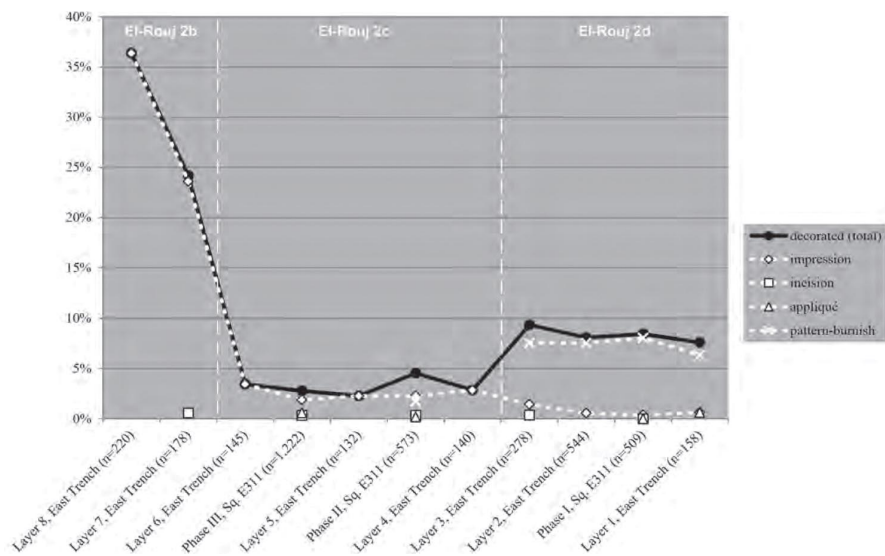


Figure 16.5. Ratio of decoration in DFBW rim sherds from East Trench and Square E311 at Tell Ain el-Kerkh.



Figure 16.6. Coarse Ware with decoration. Central Area at Tell Ain el-Kerkh.

The emergence of Fine Painted Ware seemed to have a tremendous impact on pre-existing pottery production and on the meaning of pottery vessels and/or their decoration in human societies in the Northern Levant. First, Samarra or Samarra-related painted pottery itself has been surely found in the Northern Levant, at the westernmost end of its regional distribution. Even though the numbers remained extremely limited, these imports probably represented

valuable, exotic items. In general, low numbers of Samarra or Samarra-related painted pottery appears to be the normal situation in Syria and southeastern Anatolia, although it was recovered from many sites belonging to the so-called Proto-Halaf period. The literature suggests that it usually represented a minor component of the assemblage, less than 5% of the total potsherds at least in the early stage of this period (*e.g.* Le Mière and Nieuwenhuys 1996; Nieuwenhuys *et al.* 2002; Cruells and Nieuwenhuys 2004; Tekin 2005).

Pottery resembling the Upper Mesopotamian Orange Fine Ware, too, was very rare in the Northern Levant. This category seems to have been imported from the east as well. On the other hand, it is possible that Cream Ware was made locally, as this category became more common in El-Rouj 2d period. These three types appeared in the same time period, implying strong correlations between them. It is argued that the introduction of these new painted pottery styles was influenced by the emergence of Fine Painted Ware. The increase of Cream Ware in the northern Levant may reflect a local response to the Upper Mesopotamian Halaf horizon.

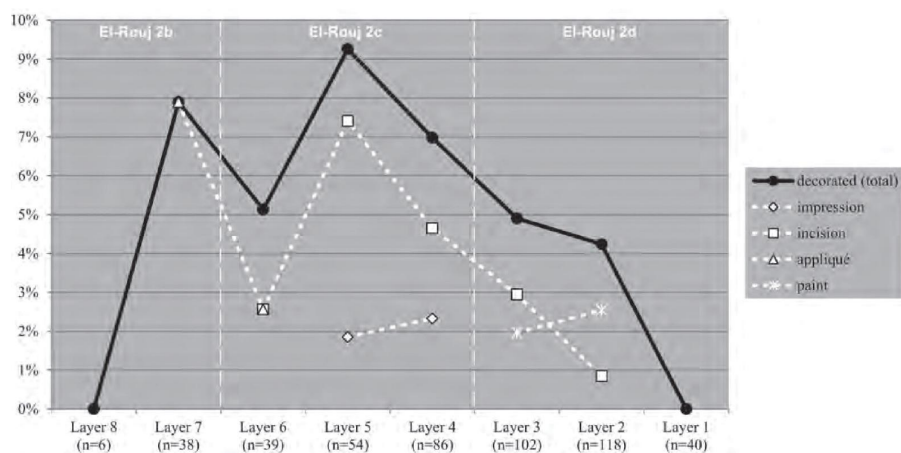


Figure 16.7. Ratio of decoration in Coarse W diagnostic sherds from East Trench at Tell Ain el-Kerkh.



Figure 16.8. (Colour Pl. 24). Plaster-coated Ware with red paint. Central Area at Tell Ain el-Kerkh.

Significantly, pattern-burnishing as a decorative technique also appeared for the first time in this period. Traditionally, the methods for decorating DFBW mainly consisted of various types of impressions, to which potters added incisions and appliqué. All three could be called “plastic” or “three-dimensional” decoration because the surface of the pottery was deliberately made uneven. In stark contrast, a pattern-burnish is a “flat”, “plane” or “two-dimensional” type of decoration, similar to painted designs. This suggests that the sophisticated approach to painted decoration as seen in the Fine Painted Ware stimulated the development of new methods of decoration among local DFBW potters. Initially, however, during the El-Rouj 2c period, contemporary with the Proto-Halaf period, pattern-burnishing was still rare.

In the following El-Rouj 2d period, which was contemporary with the Early Halaf in Upper Mesopotamia, the manner of pottery production in the northern Levant change drastically. In Upper Mesopotamia Halaf pottery emerged as a dominant ware-type at this time. Potters in the northern Levant, in response, conservatively kept to their local traditions, retaining DFBW as the dominant ware-type. Most elements of the Halaf package did not reach this region, although some Halaf pottery containers certainly did. The clear influence of Halaf pottery on local, northern Levantine traditions can be observed in some attributes of the DFBW. For the vessel shapes, so-called cream bowls and straight-sided or slightly flared bowls with flat bases appeared, which were identical to those of Early Halaf Fine

Ware pottery. The fabric also became finer and more compact, showing a trend similar to what occurred with Halaf Fine Ware pottery.

Perhaps in response to the new Upper Mesopotamian styles of painting the pottery, a few rare specimens carrying painted decoration were found among DFBW (Fig. 16.9/Colour Pl. 25). However, its “dark face” seemed to be unsuitable for paint *a priori* (cf. Le Mière and Picon 1998). Red or black paint on this pottery did not provide a clear contrast against the dark-coloured background. Thus, painted DFBW remained quite rare and never become common. Instead of painting, pattern-burnishing became the most dominant method of decoration. The rise of pattern-burnished DFBW in the northern Levant closely mirrors the emergence of Fine Painted Ware in Syrian Mesopotamia. While pattern-burnished vessels comprised minor quantities in the El-Rouj 2c period (Proto-Halaf), they became dominant in the succeeding El-Rouj 2d period (Early Halaf). It is recalled that both pattern-burnishing in DFBW and painting in the Fine Painted Ware were elaborate and “flat” types of decoration. The abundance of pattern-burnished DFBW was probably influenced by the elaborately painted designs of the Halaf pottery from the east.



Figure 16.9. (Colour Pl. 25). DFBW with red paint (hardly visible). Central Area at Tell Ain el-Kerkh.

Interestingly, however, the design structures and the motifs were not always identical between the pattern-burnished DFBW and the Halaf painted Fine Ware pottery. The pattern-burnished designs

generally consisted of simple geometric motifs filling-in single, broad spaces between two horizontal bands; these were less complex than the designs seen in Halaf pottery. In spite of the broad similarities local pottery traditions in the Northern Levant were kept regionally distinct. A reason of the reduced complexity could be caused by technological constraints inherent in the technique of pattern-burnishing. On the other hand, in terms of its “character” and design “grammar” this pottery tradition developed a unique indigenous language, which might be difficult for communities in Upper Mesopotamia to translate (cf. Özbal this vol.). It should be stressed that these two explanations are not mutually exclusive. To some extent both pattern-burnished DFBW and Halaf Fine Ware would be used with the comparable social-symbolic expressions, while their meanings and manners of the production would be essentially distinct each other.

Concluding remarks

To summarize, changes in Late Neolithic pottery decoration in the northern Levant were mostly observed in the DFBW. They led to the emergence of a ceramic category meant for display. DFBW containers functioned as a “fine ware”. The most notable change was the shift from impressing to pattern burnishing as the dominant method for decoration, in other words from “plastic” to “flat” technologies. In its emphasis on “flat” decoration, the rise of pattern-burnishing in the Northern Levant is comparable to the development of Fine Painted Ware in Upper Mesopotamia. Pattern-burnished DFBW flourished in the northern Levant at the same time as the horizon of Halaf pottery in the east.

However, the fact that paint was rarely applied by potters in the northern Levant demonstrates the strong persistence of local traditions. Largely rejecting painted decoration, potters adopted some morphological and technological elements from the Halaf Fine Ware, such as vessel shapes and fabric, but they continued to prefer the dark or black surfaces typical for DFBW. Painting never became popular in this region. The DFBW tradition endured as a “fine ware” from the very early stages of pottery production, and in fact, most of the decorated pottery was DFBW. When Fine Painted Ware began to reach the northern Levant, DFBW was not regarded as a preferable ware-type for painted decoration due to its inherently dark-coloured surface. Instead of elaborate painted compositions, pattern-burnishing was preferred for DFBW. This fact reflected not only technological difficulty to create high-contrasted paintings on the dark surface but

also local conservatism of the pottery tradition and/or the need to express a distinct local regional identity through pottery style.

Both the Fine Painted Ware and the DFBW were used to display meanings in their decorated motifs. At the same time, however, the pottery tradition in the northern Levant showed local preferences in the design structures and pattern-burnished motifs, clearly distinguishing the DFBW from Fine Painted Ware. This strongly suggests that decorated pottery carried different meanings in the northern Levant and Upper Mesopotamia.

This discussion provides an example of the importance of local and regional frameworks in the larger narratives of decorated and painted pottery traditions in the ancient Near East. Communities inhabiting the northern Levant developed a local manner of decorating their pottery vessels, closely resembling but notably distinct from their neighbours in Upper Mesopotamia, the heartland of Fine Painted Ware.

Acknowledgements

I would like to express my gratitude to all the participants of the workshop for their valuable comments and productive discussions. Dr Rana Özbal's impressive suggestion on the difference of the design and motif in decoration between DFBW and Halaf pottery was particularly helpful. I also greatly appreciate to Prof. Akira Tsuneki and Mr Jamal Hassan Hydar, co-directors of excavations at Tell elKerkh. This paper was supported by Grants-in-Aid for Scientific Research, MEXT, Japan (No. 22720300) and Waseda University Grant for Special Research Projects (No. 2011A-960).

Bibliography

- Braidwood, R. J. and Braidwood, L. S. (1960) *Excavations in the Plain of Antioch I: the Earlier Assemblages Phases A-J*, Oriental Institute Publications 61, Chicago, University of Chicago Press.
- Cruells, W. and Nieuwenhuysse, O. P. (2004) The Proto-Halaf period in Syria. New sites, new data. *Paléorient* 30/1, 47–68.
- Iwasaki, T. and Nishino, H. (eds) (1991) *An Archaeological Study on the Development of Civilization in Syria I*, Report of University of Tsukuba Archaeological Mission to Syria I, Tsukuba, Institute of History and Anthropology, University of Tsukuba (in Japanese).
- Iwasaki, T., Nishino, H. and Tsuneki, A. (1995) The prehistory of the Rouj basin, northwest Syria. A preliminary report. *Anatolica* 21, 143–187.
- Iwasaki, T. and Tsuneki, A. (eds) (2003) *Archaeology of the Rouj Basin: a regional study of the transition from village to city in northwest Syria*, Vol. I, Al-Shark 2, Tsukuba, Department of Archaeology, Institute of History and Anthropology, University of Tsukuba.
- Le Mièvre, M. and Nieuwenhuysse, O. P. (1996) The prehistoric pottery. In P. M. M. G. Akkermans (ed.) *Tell Sabi Abyad, the Late Neolithic Settlement. Report on the Excavations of the University of Amsterdam (1988) and the National Museum of Antiquities Leiden (1991–1993) in Syria*, 119–284, Leiden/Istanbul, Nederlands Historisch-Archaeologisch Instituut

- te Istanbul.
- Le Mière, M. and Picon, M. (1998) Les débuts de la céramique au Proche-Orient. *Paléorient* 24/2, 5–26.
- Nieuwenhuys, O. P., Jacobs, L. and van As, B. (2002) The ceramics. In A. Suleiman and O. P. Nieuwenhuys (eds) *Tell Boueid II. A Late Neolithic Village on the Middle Khabur (Syria)*, 35–124, Subartu XI, Turnhout, Brepols.
- Odaka, T. (2003) Fine Painted Wares in the Neolithic northern Levant: the earliest evidence from Tell Ain el-Kerkh, the Rouj basin. *Orient-Express: Notes et Nouvelles d'Archéologie Orientale* 2003/3, 80–81.
- Tekin, H. (2005) Hakemi Use: a new discovery regarding the northern distribution of Hassunan/Samarran pottery in the Near East. *Antiquity* 79/303. Available online from <http://antiquity.ac.uk/ProjGall/tekin/index.html> (accessed 08.04.2014).
- Tsuneki, A. (1993) Tentative chronology of the Rouj basin. In T. Iwasaki and H. Nishino (eds) *An Archaeological Study on the Development of Civilization in Syria III*, 63–69, Report of University of Tsukuba Archaeological Mission to Syria III, Tsukuba, Institute of History and Anthropology, University of Tsukuba (in Japanese).
- Tsuneki, A., Hydar, J., Miyake, Y., Akahane, S., Arimura, M., Nishiyama, S., Sha'baan, H., Anezaki, T. and Yano, S. (1998) Second preliminary report of the excavations at Tell el-Kerkh (1998), northwestern Syria. *Bulletin of the Ancient Orient Museum* 19, 1–40.
- Tsuneki, A., Hydar, J., Miyake, Y., Akahane, S., Nakamura, T., Arimura, M. and Sekine, S. (1997) First preliminary report of the excavations at Tell el-Kerkh (1997), northwestern Syria. *Bulletin of the Ancient Orient Museum* 18, 1–40.
- Tsuneki, A., Hydar, J., Miyake, Y., Hudson, M., Arimura, M., Maeda, O., Odaka, T. and Yano, S. (1999) Third preliminary report of the excavations at Tell el-Kerkh (1999), northwestern Syria. *Bulletin of the Ancient Orient Museum* 20, 1–32.
- Tsuneki, A., Hydar, J., Miyake, Y., Maeda, O., Odaka, T., Tan'no, K. and Hasegawa, A. (2000) Fourth preliminary report of the excavations at Tell el-Kerkh (2000), northwestern Syria. *Bulletin of the Ancient Orient Museum* 21, 1–36.
- Tsuneki, A., Hydar, J., Odaka, T. and Hasegawa, A. (2007) *A Decade of Excavations at Tell el-Kerkh, 1997–2006*, Tsukuba, Department of Archaeology, University of Tsukuba.
- Tsuneki, A. and Miyake, Y. (1996) The earliest pottery sequence of the Levant: new data from Tell el-Kerkh 2, northern Syria. *Paléorient* 22/1, 109–123.

Exploring the data: the pottery of Umm Qseir

Frank Hole

Abstract

The highly decorated Halaf pottery has inspired decades of speculation about its role in sixth millennium society. Household production, trade, specialization, gift exchange and elite production have all been invoked to explain the wide geographic spread of these ceramics over a span of 700–800 years. Both attribute analysis and technical studies have been used to bolster arguments that support various theories about Halafian society. Using a large corpus of painted pottery from Umm Qseir, this paper systematically examines the ceramics from the points of view of internal consistency and competence. Two modes of production, local household and non-local source(s) may be represented.

Introduction

Since the discovery of elaborately decorated pottery near the base of Tell Halaf nearly 100 years ago (Oppenheim 1931), followed by the discovery of Arpachiyah with its extraordinary assemblage of polychrome plates (Mallowan and Rose 1935), there has been intense interest in the pottery and the period. More recent discoveries of Halafian sites spread across much of Northern Mesopotamia and surrounding lands, has provided additional data and led to much speculation about the nature of Halafian society. The pottery has inspired numerous comparative studies of the hundreds of Halafian design motifs, to suggest how they were disseminated and what they tell about Halafian society (LeBlanc and Watson 1973; Campbell 1992). Interpretations have generally followed anthropological insights into the kinds of societies capable of producing such widespread uniformity and excellence (Watson 1983; Campbell 1992).

Rather than attempt a comparative study, this paper focuses exclusively on one site, Umm Qseir.

This paper is an exercise in exploratory data analysis, using painted ceramics from Umm Qseir, a small Middle Halaf site on the left bank of the Khabur River in Northeastern Syria. Two sets of excavations, in 1986 (Hole and Johnson 1986–87) and in 1996 by a Japanese team (Tsuneki and Miyake 1998) produced essentially identical results. The Halaf deposits are now some 1.5 m deep, truncated by flooding events, with only ephemeral traces of architecture. Neither team recognized significant changes in the ceramics or other artifacts.

The focus here is to try to understand the ceramics of one site. The essential question is whether there was a discernible system to the way the potters at Umm Qseir painted their pots. If there was a system: a) can we find it, b) is it site specific, and c) does it differ from “foreign-made” pots? The answers to these questions take us to the more general question about the nature of Halafian society – or at least how Umm Qseir fitted into a larger social milieu. There are several ways one might attempt to answer the questions: by careful observation, by coding and classifying variables, and by comparison with other sites. The method used here is to cross-correlate variables, based on visual observation ([Table 17.1](#)).

Previous studies of elaborately decorated pottery have revealed a strong relationship between the form of the vessel and the way designs are displayed on it, as well as the motifs themselves (Woolley 1934, 155; Hole 1984; 2010; 2013). To test the generality of this proposition, I examine the entire corpus of painted pottery from Umm Qseir. This corpus consists of all of the painted sherds published (Hole and Johnson 1986–87) and (Tsuneki *et al.* 1996), augmented with additional drawings of painted sherds in the Yale collection, as well as all sherds with reasonably complete designs that had been left in the storeroom of the Hasseke office of the Department of Antiquities. As we had to dispose of those, the drawings are the sole remaining evidence. In combination these sources are the fullest possible inventory of painted pottery available from this site.

Table 17.1. Correspondence between structures and motifs at Umm Qseir. Columns refer to motif type and X indicates presence of the motif: 1) Dot motifs ([Fig. 17.1](#)); 2) Other horizontal motifs ([Fig. 17.2](#)); 3) Dot and quatrefoil motifs ([Fig. 17.3](#)); 4) Vertical motifs ([Fig. 17.4](#)); 5) Checkerboard motifs ([Fig. 17.5](#))

<i>Motif</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
dot rows	x				
dotted circle	x				
dotted lozenge	x				
dot circle	x				
birdfoot	x				
pierced chain	x		x		
eye	x				
chevrons	x	x			
chain	x		x		
wavy line		x			
doily loops		x			
fish scales		x			
vertical bird feet		x			
knotted line		x			
x-hatch band		x			x
x-hatch panel		x			
lozenge			x		
dot panel			x		
quatrafoil panel			x		
bucrania panel			x		
vertical line				x	
vert wiggly line				x	
vert oblique				x	
vert zig-zag				x	
vert bound chevron				x	
vert chevron				x	
vert pierced chain				x	
x-hatch					x
x-hatch diamond					x
checker					x
x-hatch checker					x
filled diamonds					x

At the conference in Leiden some years ago I presented a paper that showed how one could identify regional “dialects” in the designs on Halaf Cream Bowls (Hole 2013). I chose a form, cream bowls, that had elaborately painted examples and which occur in many Halaf sites. My task in 2009, to show the unique qualities of different regions, was relatively easy. For this paper, with a larger and more varied data set,

I wondered whether the interrelationships between structure and design could be extended to the entire corpus of painted pottery from Umm Qseir.

Essentially I look for evidence of an underlying approach to the application of designs that identifies a vessel as having been painted at Umm Qseir. In order to answer this question, there must be enough consistency to reveal habitual local patterns, and these patterns should be recognizably distinct from patterns at other contemporary sites (if such are known). Absent a standard system, there may be differences from one site to another in such things as 1) specific motifs used, 2) the ways the painting is structured on the vessels, and 3) the relationship between motifs and structures. Differences might also be seen in sizes and shapes of pots, as well as variations in surface treatments, but these are not considered in this paper. Here we focus only on defining the system used at Umm Qseir to decorate pots.

Analysis

My previous experience suggests that one fruitful way to approach the idea of grammar (a systematic approach to structuring motifs on a vessel) is to see whether examples, whether on one form or more, have the same combinations of structure and motif. Using common sense, let us imagine that if a potter works on different forms during one production run that all of the pots might be painted in the same way. In another case, let us imagine that a potter is asked to paint pots for various clients. Again one might expect the results to be closely similar, but not necessarily identical if each customer wanted to be able to identify her pot. Let us further imagine that if a pot painter teaches his craft to an apprentice, we might find cruder versions of the standard. We can also imagine that some kinds of pots were not made locally, but were acquired in sufficient quantity to represent a significant proportion of the total inventory. In such a case one might find a grammar or set of motifs specific to them, but not to the local norms. The question is, can we identify a “normal” at Umm Qseir, as well as recognizing outliers?

There are some caveats. First, with relatively few whole pots to examine, it is necessary to work with sherds whose form is not always evident. Second, the number of sherds available for analysis is relatively small compared with what must once have been present in the site. This is important because our sample may be skewed, such that a fairly common pot or motif may be represented by only a few sherds. For small, unique sherds it may be possible only to examine motif rather than its place within a structure.

I use three approaches to discovering what is unique about the Umm Qseir ceramics. 1) An examination of the way structure and motif relate to form; 2) repetitive structures and associated motifs; and 3) variability of the “same” motif. This is a nested series, first providing an overview, then focusing on narrow attributes. 1 and 2 relate to local and regional concerns, while 3 looks at individual painters.

The most basic structural elements are bands and lines, which run horizontally around the circumference of the vessel, or vertically to separate panels. Bands are visibly wider than lines. Also running circumferentially are various motifs, which are usually, but not always, drawn between lines or bands. Motifs include dots, lozenges, chains, wavy lines, bird feet, chevrons, doily loops, knotted lines, and so on. More complex motifs, which may appear as panels, include the dot and quatrefoil, checkerboards and bow-ties. Finally there are motifs, with vertical orientation, and others, which stand alone.

To test whether there is consistency between vessel form, structure and motif, using the entire corpus of painted pottery, I grouped all sherds of the same form on separate figures and then examined them visually and in tabular form. This analysis required some seventeen figures to accommodate all of the sherds, far too many to use in this paper. Rather than display all these data, I shall simply summarize the results. 1) As seems evident in all Halafian sites, each painted vessel is unique: they were not being turned out as literal copies, regardless of form. 2) Apart from the cream bowls that I studied previously, there is little to suggest firm adherence to a relationship between form and structure. 3) While the horizontal line-motif-line structure is commonly found, there are also different structures found on most forms. 4) This analysis, tedious though it was, did not reveal enough consistency on most forms to be regarded as a “grammar”, although some combinations of motifs with structures may be site-specific, as we shall see below.

Structure and motif

We now look more closely at the common structures, regardless of form. To make it easier to comprehend, in the following figures, I have isolated examples of five structures that stand out immediately because of their repeated use on different vessel forms. These are: 1) horizontal line-motif-line; 2) horizontal dot and quatrefoil; 3) vertical orientation; 4) variant structures; 5) overall designs. Within each of these groups there are variants, as described below.

Horizontal line-motif-line

Variant 1. Both jars and cream bowls have alternating rows of small and larger dots (Fig. 17.1, 1–8). On these vessels the two sizes of dots provide the line-motif-line structure. That dot rows also occur on the interiors of small vessels bespeaks considerable skill and a steady hand. While this structure is not commonly seen elsewhere it occurs in Shams ed-Din (Gustavson-Gaube 1981, fig. 42) and Girikihaciyan (Watson and LeBlanc 1990, fig. 4.4), among others.

Variant 2. Using the same basic structure, on globular jars and bowls, there are rows of motifs set apart by double or triple lines (Fig. 17.1, 9–17; Fig. 17.3, 1, 2). Motifs include bird feet, lozenges, dotted circles, and pierced chains. None of these has an exterior band at the rim. The drafting is precise, showing a level of skill comparable with the vessels in variant 1.

Other horizontal orientations

A number of vessels use a single motif expressed in repeated rows that encircle the vessel. The lack of uniformity is striking, but where enough of the sherd remains, the base or bottom of the line of motifs is a thick black band. The deep, straight-sided bowls are notable for the loose cross hatching (Fig. 17.2, 15, 16) and the repeated line-wavy line-line series of Fig. 17.2, 14.

Horizontal dot and quatrefoil panel

This structure is found on round and little cream bowls where the entire motif encircles the visible part of the vessel, but is broken into alternating rectangular panels. On the open bowls the design is on the exterior (Fig. 17.3, 1–4, 13), while on the little cream bowls it may be on either face. A number of variant examples also use the dot and panel structure on both open bowls and little cream bowls (Fig. 17.3, 7–12). The great variability in the ways these latter panels are decorated reinforces the impression that production was not standardized.

Within this group it is possible that one painter or workshop made all of the vessels; however, we should note that this motif combination is not unique to Umm Qseir. Essentially identical examples of the quatrefoil motif are found Tell Aqab (Davidson and Watkins 1981, fig. 2) and as far away as Girikihaciyan (Watson and LeBlanc 1990, fig. 4.4), Amarna (Cruells 2004, AM 10577), Yunus (Dirvana 1944, pl. lxxi) and Arpachiyah (Mallowan and Rose 1935, fig. 66).

Vertical orientation

Variant 1. This, the most numerous of the vertical orientations, consists of lines displayed in groups, which are not necessarily continuous around the vessel (Fig. 17.4, 1–10). Both straight and wavy lines are included. Several bowls have either doily loops or short vertical lines inside the rim.

Variant 2. Another group of bowls has chevrons or diagonal lines stacked vertically (Fig. 17.4, 11–2, 14–15). On a large cream bowl the motif is on the outside while the interior follows the normal line-motif-line structure (Fig. 17.4, 13).

Variant 3. A few pots have the chain motif oriented vertically (Fig. 17.4, 16–18).

Overall designs

A wide variety of vessel forms is included in this group. Two vessels have vertical panels (Fig. 17.5, 1, 4), while the remainder use an uninterrupted motif around the circumference.

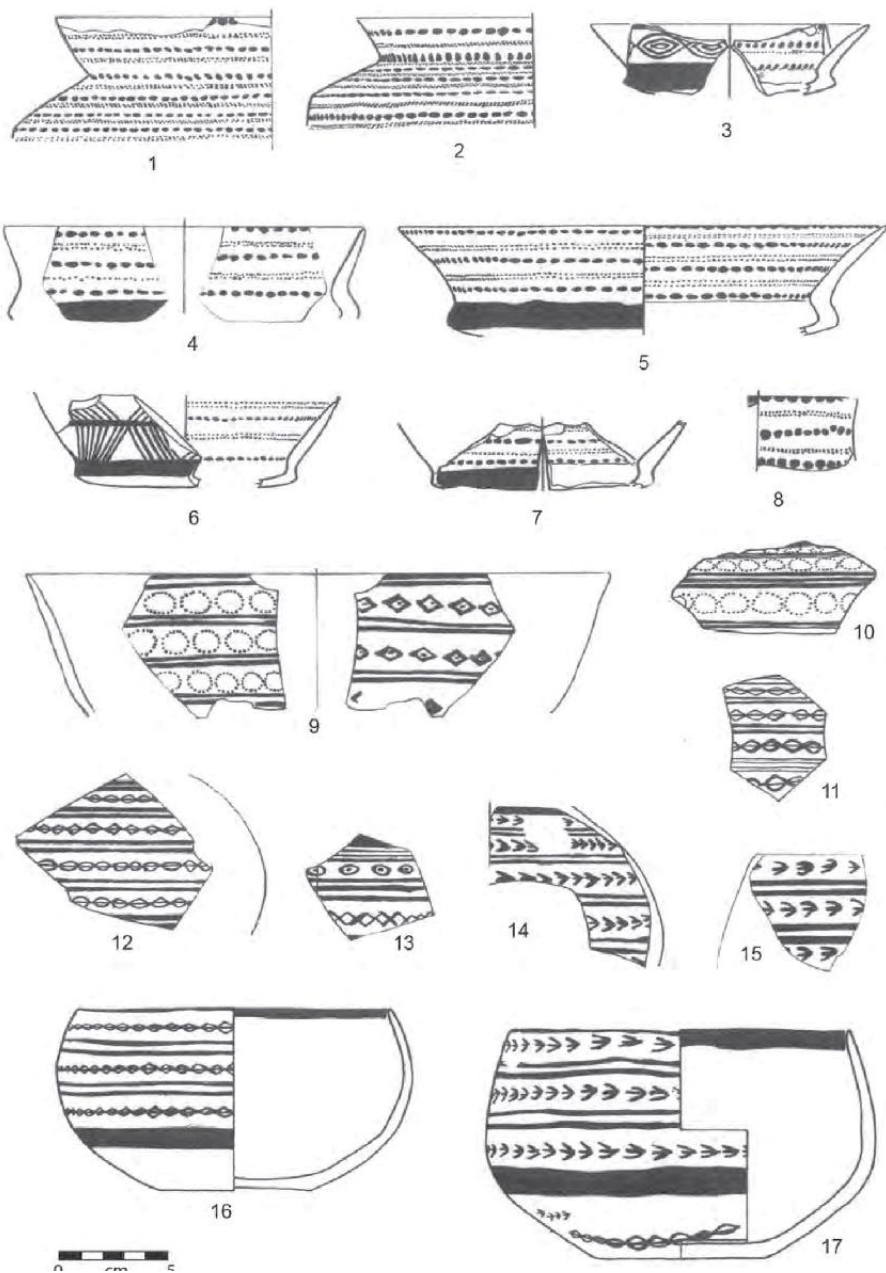


Figure 17.1. Painted Halaf Fine Ware from Umm Qseir. Horizontal dot-and-line motif.

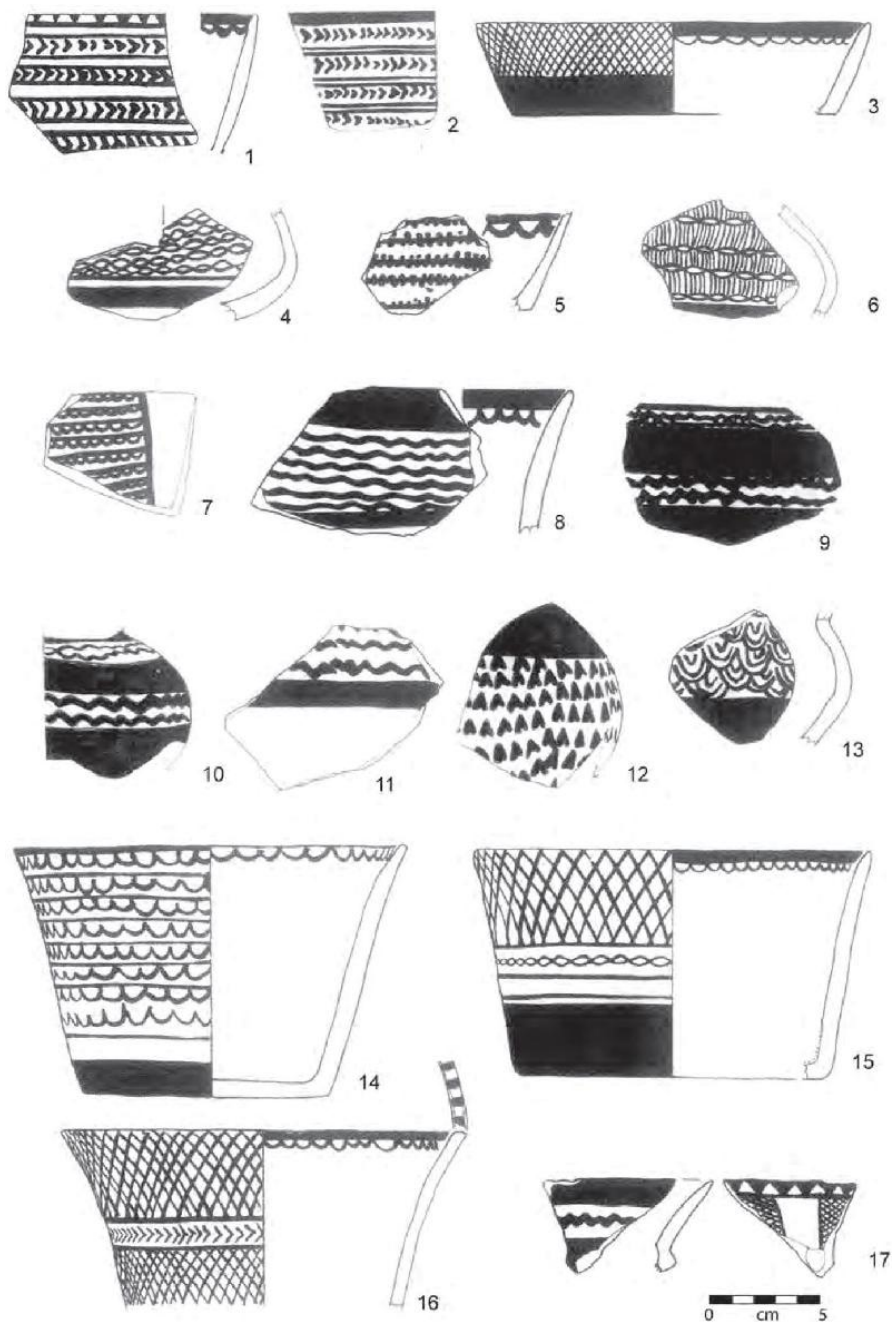


Figure 17.2. Painted Halaf Fine Ware from Umm Qseir. Other horizontal structures.

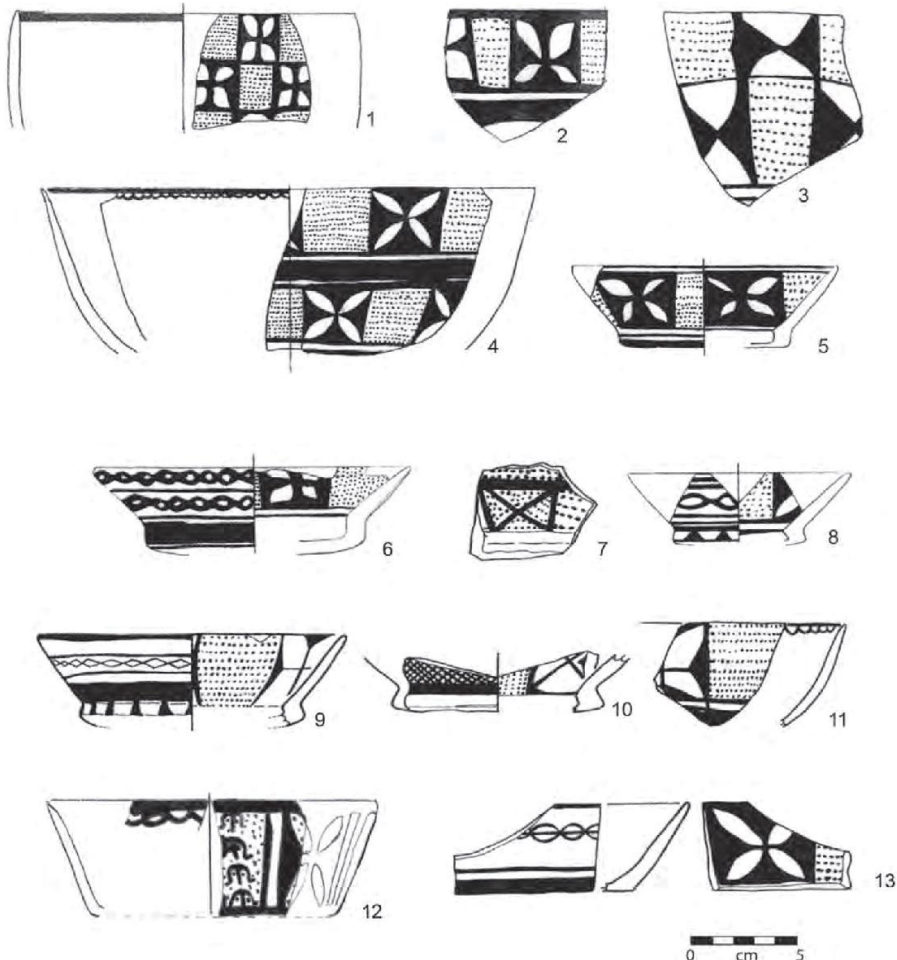


Figure 17.3. Painted Halaf Fine Ware from Umm Qseir. Horizontal dot-and-quatrefoil motif.

Variant 1. Vessels with cross-hatching in various styles, displayed as broad bands, are arranged around the circumference of the pot (Fig. 17.5, 1–4).

Variant 2. Checkerboards and filled lozenges/diamonds also create overall designs (Fig. 17.5, 5–11), but they are drawn in individual styles.

Assessment of structure-motif combinations

Visual examination of the figures may not reveal the close relationship between structure and motif, but as Table 17.1 shows, each of the structures has its own set of motifs, with very little overlap. This correspondence, determined after I had arranged the figures by structure, was unexpectedly close. Clearly the painters worked with an understanding that among the lexicon of motifs, only a sub-set could

be applied to particular structures. Interestingly, this does not show when we examine form and motif. It is readily apparent that there are differing levels of performance across the structures, with some displaying precise quality of line and others displaying a casual indifference and coarser line.

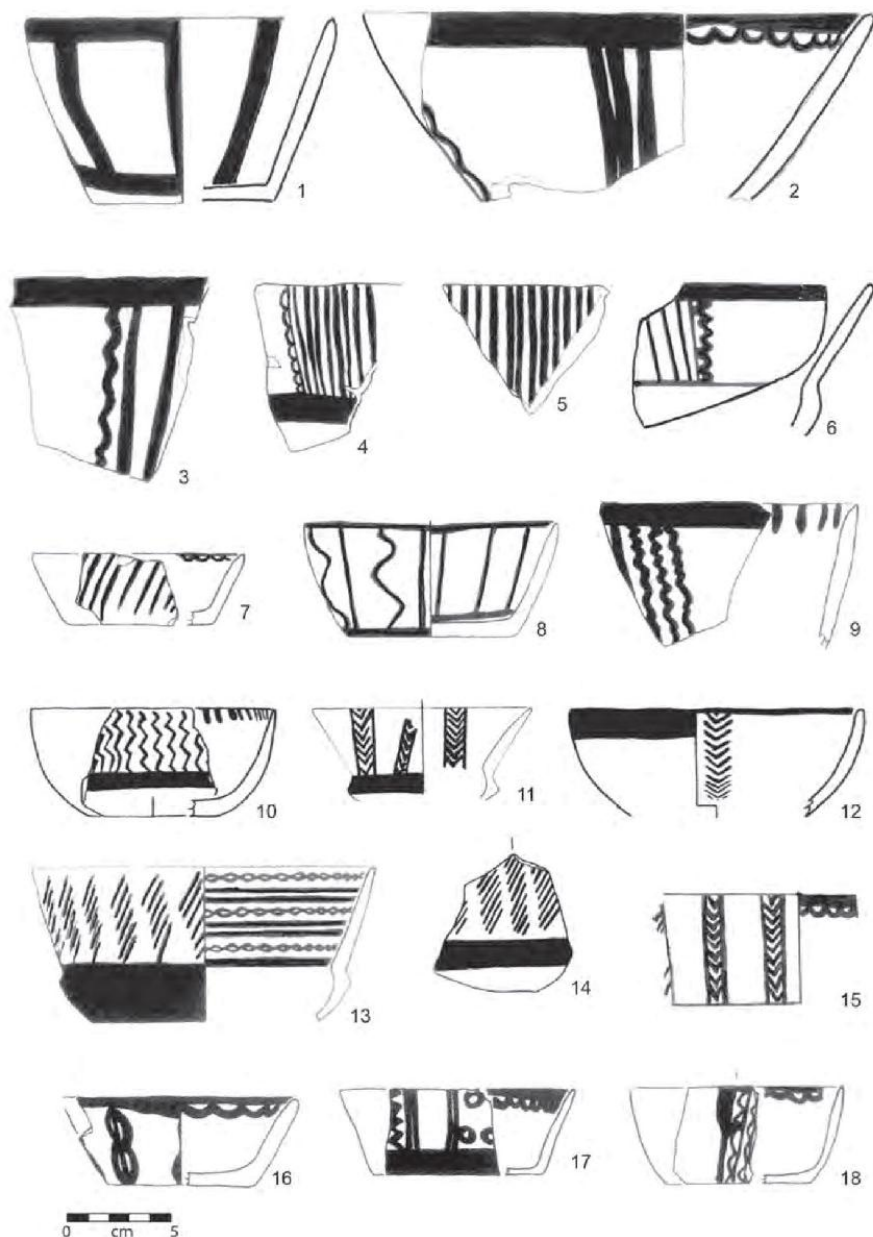


Figure 17.4. Painted Halaf Fine Ware from Umm Qseir. Vertical orientation.

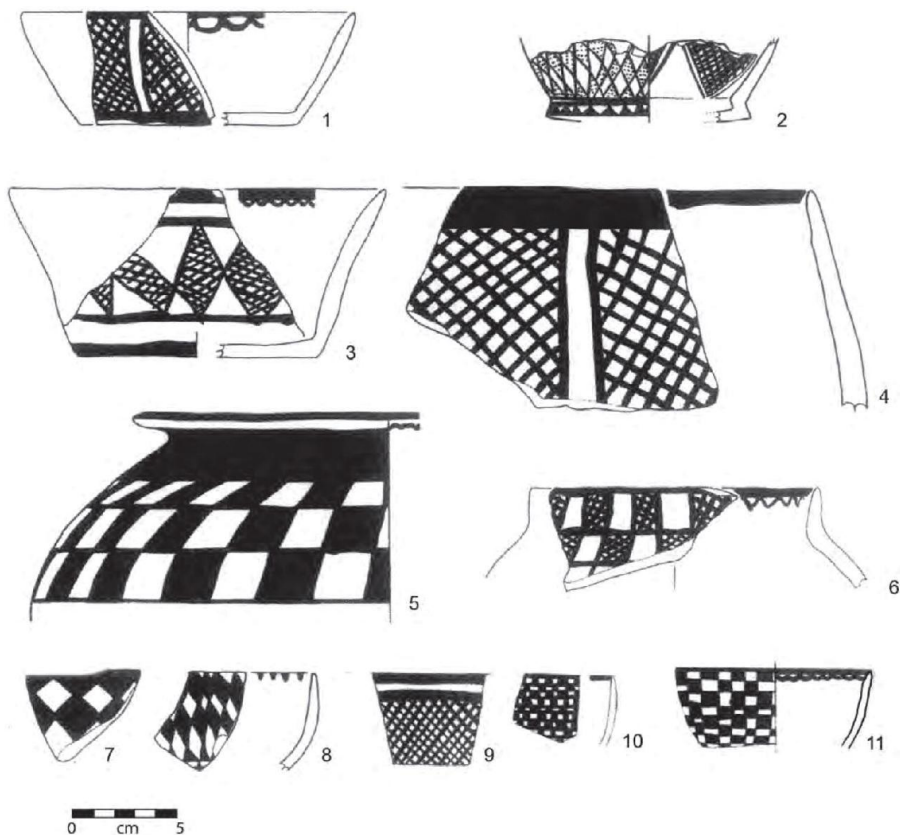


Figure 17.5. Painted Halaf Fine Ware from Umm Qseir. Overall designs.

These five structures comprise the bulk of the pottery. The prevailing mode on all forms is rows of horizontally arrayed motifs. A number of other Halaf sites also feature horizontality, but carried out in different ways. For example, Arpachiyah usually displays horizontal motifs in panels. Shams ed-Din (Gustavson-Gaube 1981, figs 51–67) has many examples using the same structure, but distinct from Umm Qseir in combining motifs. A quick survey of other potentially comparable sites shows that one can often find examples similar to Umm Qseir, but comprising only a small fraction of the ceramics or, as in the case of Arpachiyah, displayed differently. No doubt careful comparison of sites would find many parallels in the use of motifs, but many fewer of motifs structured as they are at Umm Qseir. This is not unexpected considering the probable social milieu, with fluctuating residential populations, and chronological differences among sites.

Painting Halafian ceramics

We turn now to an examination of the motifs themselves. Rather than tally each motif and its counterparts at other sites, as many others

have done (LeBlanc 1971; LeBlanc and Watson 1973; Campbell 1992), I illustrate some of the most common motifs at Umm Qseir to see if we can gain insight into the nature of production. I assume that comparison of the way a motif is painted on many vessels will reveal the degree of standardization and competence. By this means we may identify the work of individual painters and workshops as well as vessels that by virtue of being unique, suggest non-local production (Castro Gessner 2013).

There are several styles of painting in Umm Qseir, some of which appear to be entirely local; others are so aberrant as to suggest an external source, while other pots, using identical and complex structures and motifs, are found at the same time in other sites (as noted above). In short, at a first glance it seems as if there are both local traditions and “imports”, implying manufacture elsewhere or a borrowing of “foreign” styles.

In this section I show the variety and variability in the use of motifs, as well as the skill with which they were painted. There are two aspects to the painting of motifs: first, how are they structured, and second, what is the quality of the work (that is, fineness, complexity and consistency). Similar approaches have been described by Bernbeck (2010) and Castro Gessner (2013).

Let us first think about who makes pots, how often they were made, what their functions were, and where they came from. Who made the pots? This is essentially unknowable, but there are clues. First is the consistency of applying motifs. Are they made with uniform precision or does the application of the motifs vary widely? Second, how often were pots made? If pots were made on demand, whether by one or many persons, they would most likely be made at intervals rather than continuously: months or years might separate potting activities. The same pot painter might, after a few years grow more precise, sloppier, or more innovative. Pots made to serve different functions might also result in different levels of painting performance. For example, large globular jars meant to store goods might receive only cursory attention, whereas fine bowls meant to be on display might receive careful attention – and one and the same potter might decorate both. Finally there is the question of whether the work of apprentices or unskilled painters shows up in our inventory. These remarks ignore what must also be considered, namely that the pots recovered may have been manufactured over the course of a hundred or more years allowing for time trends, innovations and aberrations. Any individual potter probably had a productive life span on the order of a few decades.

To facilitate analysis I show examples of four motifs and their variants from Umm Qseir. There is a lot of variability, a fact that suggests that pot painters either were not working on many pots at a time, or there were many painters, or that time had elapsed between paintings, or that individuality was prized. Another factor was the skill of the painter in executing a design on a three dimensional vessel. The motifs are reproduced at near full scale, using either the actual sherd or a section of it (Figs 17.6–17.9). The questions in the Workshop announcement will serve well. “How can we use decorated ceramics to explore social networks and identities?” What did these decorated pottery traditions mean socially?

The dot motif

It is the fine quality of painting, as seen especially in the dot and quatrefoil and the line-dot-line structures, which stand out. However, on closer examination there is variability in the spacing and horizontality of dots (Fig. 17.6, 4–8), or in the sizes of dots and the spacing of lines (Fig. 17.6, 1–3). The remaining examples reinforce the impression that a number of painters were probably at work, some with deliberate care, others with less (Fig. 17.6, 6).

Lozenge motif

Commonly found on bowls with horizontal orientation, similarities are seen in the use of dots inside the lozenges, but the quality of lines used to form the lozenges varies. Quite different, suggestive of an import perhaps, are the multi-dotted lozenges in Figure 17.7, 14. Another vessel, whose lozenges lack the dot also has a dotted circle (Fig. 17.7, 11).

Chain motif

Variant 1. The ovate chain loops (or rounded lozenges) are usually pierced with a horizontal line. The line(s)-motif-line(s) structure on globular jars is seen in Fig. 17.8, 1–3. These have relatively fine lines, whereas others have thicker lines. Especially notable are the “eyes”, chains with multiple lines and “pupils”, like eyes (Fig. 17.8, 13–14, 16–18).

Variant 2. The chains on Figure 17.9 are not pierced with a horizontal line across the center. While there is considerable variability, one might see vessels in Figure 17.9, 9–12 as coming from the same workshop, both because of the way the chains are painted and the structure of which they are a part. Figure 17.9, 1, 2 are structurally analogous to the pierced chains of Figure 17.8, 1–3.

Interpretation and conclusions

The three types of analysis that I carried out emphasize the great amount of variability seen in the Umm Qseir painted vessels. This does not necessarily mean that there was no system typical for Umm Qseir, but one does not intuitively emerge from examination of the variables I chose. Unfortunately, the one sure test of a possible stylistic dialect, comparison with vessels from elsewhere, cannot be carried out for lack of contemporary sites. Nevertheless, as I showed already elsewhere (Hole 1973) and have referred to in this paper, the potters of Umm Qseir did things differently from potters in other sites. We have norms, as seen in the relationship between structure and motif, but not complete uniformity. Moreover, because of variability in execution, it seems likely that many painters contributed to the available corpus. There are some explanations for these facts, when we consider the probable social milieu of Halafian society.

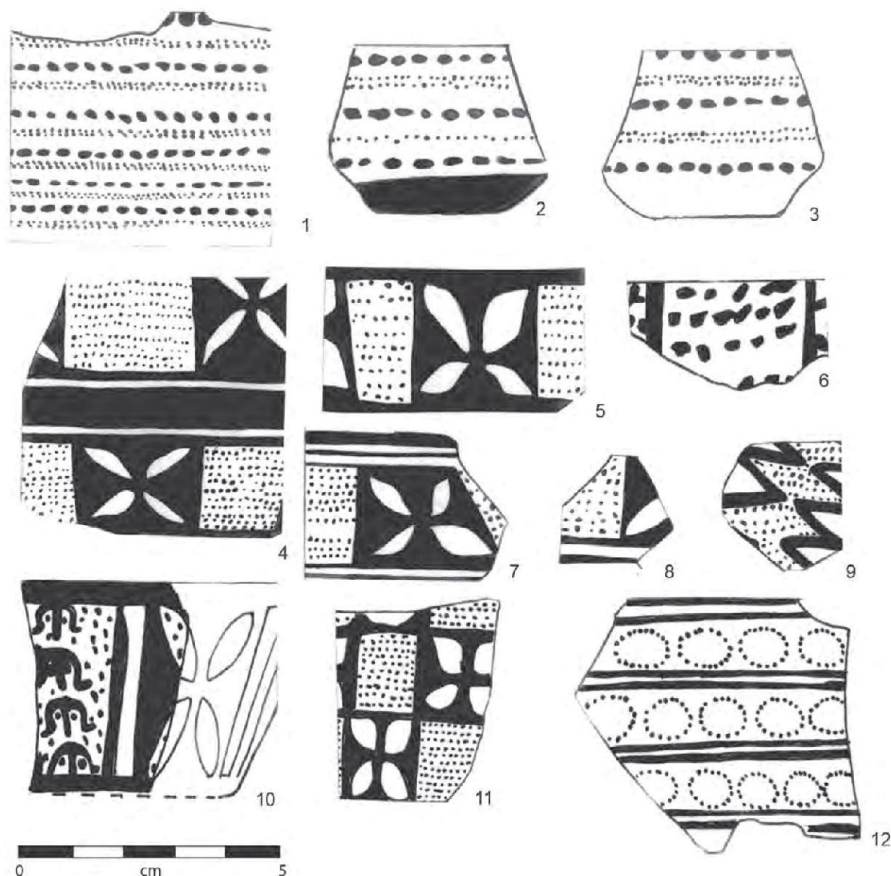


Figure 17.6. Painted Halaf Fine Ware from Umm Qseir. Variability of dot motifs.

Although some Halaf sites may encompass 12 ha or more, in the

Syrian Jazireh most Halafian sites are apparently small and short-lived: relatively few people resided in a site like Umm Qseir. Further it is likely that Halafian people may have occupied some sites only seasonally. The combination of transient occupation and short-lived settlement imply that the composition of the group was in constant flux. At a site such as Umm Qseir it suggests that spouses, shepherds and so on might come from a nearby and linguistically compatible group, possibly contributing to a mixing of styles and traditions. If the social community were as described, how consistent would the painting be, and would ceramics be a primary means of signifying the group? As items of household consumption and perhaps household production, ceramics might simply reflect individual standards and needs. This observation does not obviate the possibility that within the Khabur, all people did pretty much the same thing – a fact that would be obvious primarily to outsiders but not necessarily a way for the locals to overtly signify their cohesion.

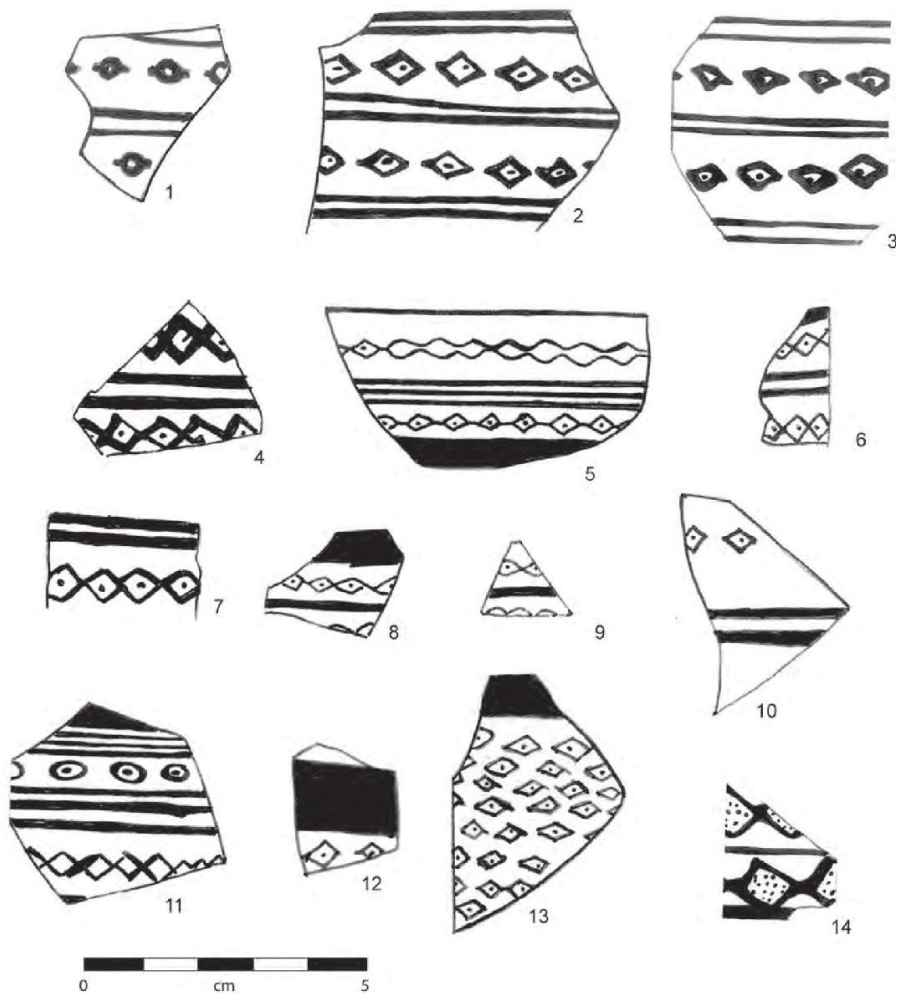


Figure 17.7. Painted Halaf Fine Ware from Umm Qseir. Variability of Lozenge motifs.

Visual observation of the quality of the painting (fineness of line) shows that there are two quite distinct groups: those with fine lines and few motifs and those with coarser lines and more variable motifs. Structures 1 and 3 exemplify the former. Nevertheless, using the same structure, vessels in [Figure 17.2](#) display the variable motifs, using a broader brush. Does this mean anything of consequence other than that some members of the community worked with greater skill and care?

That one must study the vessels from Umm Qseir at length to find the underlying order implies only loosely standardized, intermittent household production: each household made its own pots at irregular intervals. This is to be expected, given the presumed flexible nature of Halafian society. Can we contrast this with larger, sedentary societies? Perhaps these existed in the Halaf, but the best examples come from

the Late Chalcolithic when there is much more standardization in both vessel forms and decoration. This, along with the presence of pottery kilns implies that ceramic production had moved beyond a simple household craft, as is shown at Kosak Shamali (Nishiaki and Matsutani 2001). Another example is the site of Susa where the sheer number of vessels recovered from a singular event, allowed identification of several workshops (Hole 1984; 2010; Kouchoukos 1998, 172). Leonard Woolley said of these cemetery vessels:



Figure 17.8. Painted Halaf Fine Ware from Umm Qseir. Variability of pierced chain motifs.

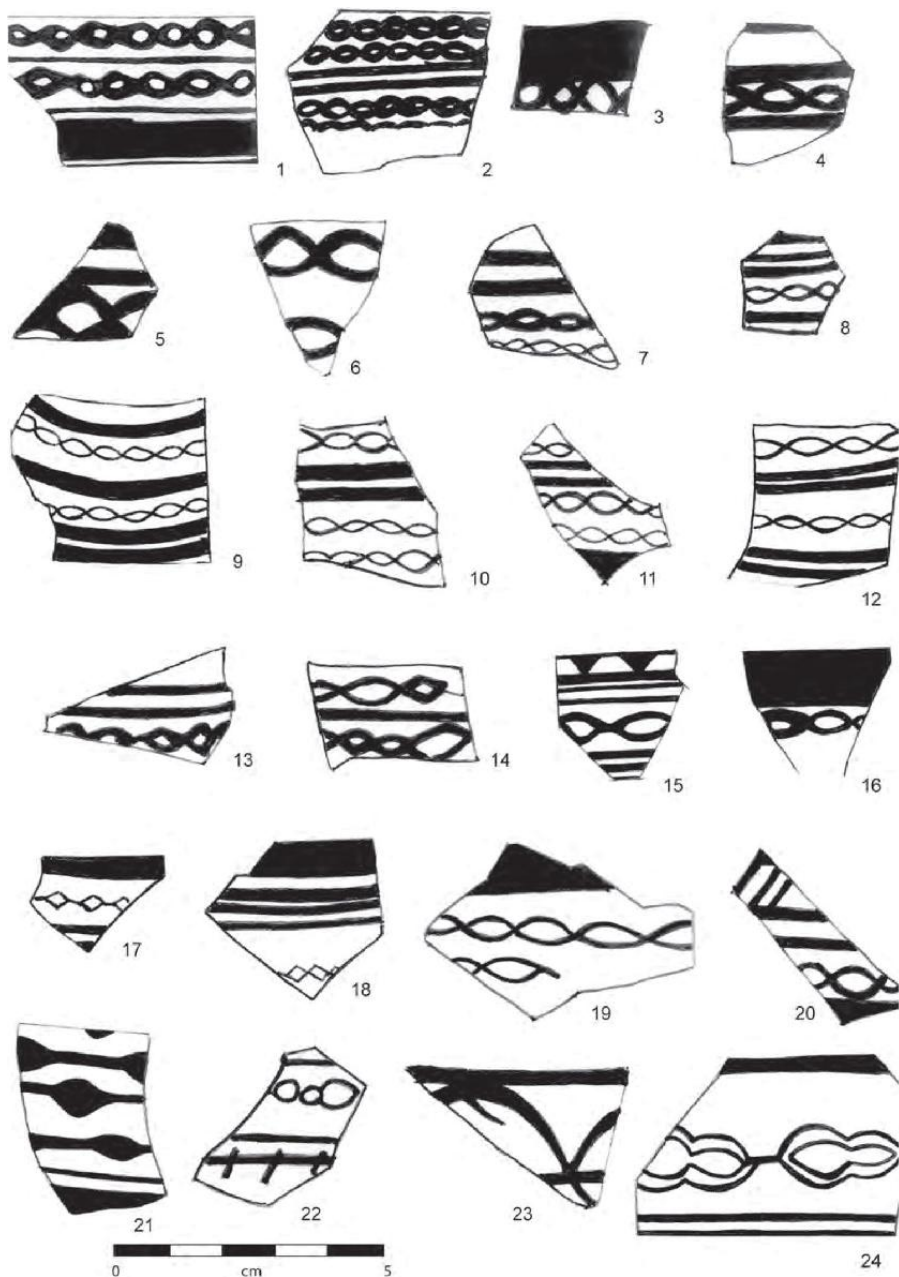


Figure 17.9. Painted Halaf Fine Ware from Umm Qseir. Variability of chain motifs.

"The decorative motives are very few, but the scheme of decoration is inseparable from the shape of the pot, so that the ornament characteristic of an open bowl is never found on a straight-sided tumbler or on a jar. This means tradition of a very hard and fast kind" (Woolley 1928, 35-50).

Such hard and fast traditions are not to be found among the bulk of Halaf pottery, but perhaps can be seen in some special vessels, and the

extraordinary polychrome plates found at Arpachiyah are a signal that a new threshold of production had been crossed during the Late Halaf. With this in mind, we might ask whether the finely painted bowls at Umm Qseir and their counterparts elsewhere may have come from non-local workshops and distributed to, or acquired by, people on the periphery. The presence of the dot and quatrefoil motif at widely spaced sites is a hint that interactions were equally widespread. But despite such seemingly precise duplications of this motif, most of the ceramics at these sites are distinct from one another, both in structure and motifs used.

Although many of the sites in the Jazirah were small, there are large and apparently well settled sites in Anatolia and northern Iraq in regions of well-watered agricultural land. A possible center in the Khabur may have been at the large site of Nisibin (Nieuwenhuyse 2000). If excavations show that the large sites were “centers” as Watson and Hijara have suggested (Hijara 1980; Watson 1983, 241), sites like Umm Qseir might be seen as pastoral dependants. In such a case individuals may have visited the centers to acquire goods, including pots, in exchange for products of the steppe. This picture could account for the broad similarities in the painted pottery, as well as for the distinctive regional differences and the “foreign” styles that were widely disseminated.

As Hijara remarked, “each Halaf region has its own pottery characteristic in both form and design” (Hijara 1980, 271). In the same vein Campbell said, “A consideration of stylistic variation may be the most promising means of identifying and understanding the regional variations and similarities which contribute critically to our concept of how society functioned” (Campbell 1992, 212). These are clearly testable hypotheses and test sites need not be all of the same age: the point would be to try to identify local norms, and this would inevitably lead one to consider inter-site interrelations.

Apart from stylistic analysis of other sites, there is clearly an opportunity for technical analyses of firing, surface treatments, paint, and source materials to help sort out some of the possibilities (Gomez-Bach this vol.). Particularly promising are the various technical studies that can be conducted, including Instrumental Neutron Activation Analysis (INAA) and X-Ray Fluorescence (XRF) and petrography. INAA, XRF and petrography are widely used to establish provenience of ceramics, obsidian and other materials. Davidson and McKerrell (1976) published a study that concluded that pots were traded among sites in the Khabur, a conclusion that was questioned on statistical grounds by Galbraith and Roaf (2001), but since Davidson and

McKerrell's work, no further studies of ceramics from the Khabur have been published. Combining technical material analyses with stylistic, there is hope for disentangling the movements of pots, but there is still a long way to go before we understand the dynamics of Halafian society. The study of the painted ceramics suggests interactions among sites, but also raises questions for investigation and directions for further excavation.

Acknowledgements

The American excavation of Umm Qseir was carried out by Frank Hole, Gregory Johnson and Javier Urcid. The ceramics were drawn at various times by the author and Rudy Mayr (at Yale) and Rian Thum (in Hasseke). Thanks to the Director General of Antiquities of Museums, Dr. Afif Bahnassi; Jean Lazar, Director of Antiquities in Hasseke; and his representative on site, Madam Nejah. Funding for the fieldwork was provided by the National Geographic Society, the Yale University Peabody Museum of Natural History, The Peabody Museum, Harvard University and the Coe Foundation Endowment, Yale University.

Bibliography

- Bernbeck, R. (2010) The Neolithic pottery. In S. Pollock, R. Bernbeck and K. Abdi (eds) *The 2003 Excavations at Tol-e Baši, Iran. Social Life in a Neolithic Village*, 65–151, Mainz, Phillip von Zabern.
- Campbell, S. (1992) *Culture, Chronology and Change in the Later Neolithic of North Mesopotamia*, unpublished PhD. thesis, Edinburgh, University of Edinburgh.
- Castro Gessner, G. (2013) Sequencing practices, revealing traditions: a case study on painters' brushwork. In O. P. Nieuwenhuyse, R. Bernbeck and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia*, 125–134, Turnhout, Brepols.
- Cruells, W. (2004) The Pottery. In Ö. Tunca and M. Molist (eds) *Tell Amarna (Syrie). La Période De Halaf*, 41–199, Louvain/Paris/Dudley (MA), Peeters.
- Davidson, T. E. and McKerrell, H. (1976) Pottery analysis and Halaf period trade in the Khabur headwaters region. *Iraq* 38, 45–56.
- Davidson, T. E. and Watkins, T. (1981) Two seasons of excavation at Tell Aqab in the Jezirah, N. E. Syria. *Iraq* 43, 1–18.
- Dirvana, S. (1944) Cerablus Civarinda Yunus'ta Bulunan Tel Halaf Keramikleri. *Belleten* 8, 403–420.
- Galbraith, J. and Roaf, M. (2001) *Does the Neutron Activation Analysis of Halaf Pottery Provide Evidence of trade? A Reexamination of Davidson and McKerrell's Investigation of Halaf Pottery from the Khabur Basin in Eastern Syria*, LSE Department of Statistics Research Report, London, London School of Economics.
- Gustavson-Gaube, C. (1981) Shams Ed-Din Tannira A: the Halafian pottery of Area A. *Berytus* 29, 9–182.
- Hijara, I. H. (1980) *The Halaf Period in Northern Mesopotamia*, London, University of London, Institute of Archaeology.
- Hole, F. (1984) Analysis of structure and design in prehistoric ceramics. *World Archaeology* 15, 326–347.
- Hole, F. (2010) The organization of ceramic production in the Susa I Period. *Paléorient* 36, 23–36.
- Hole, F. (2013) Constrained innovation: Halafian ceramics. In O. P. Nieuwenhuyse, R.

- Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic in Upper Mesopotamia*, 77–87, Turnhout, Brepols.
- Hole, F. and Johnson, G. A. (1986–87) Umm Qseir on the Khabur: preliminary report on the 1986 excavation. *Annales Archéologiques Arabes Syriennes* 36–37, 172–220.
- Kouchoukos, N. (1998) *Landscape and Social Change in Late Prehistoric Mesopotamia*, New Haven, Yale University.
- LeBlanc, S. A. (1971) *Computerized Conjunctive Archeology and the near Eastern Halaf*, Saint Louis, Washington University.
- LeBlanc, S. A. and Watson, P. J. (1973) A comparative statistical analysis of painted pottery from seven Halafian sites. *Paléorient* 1, 117–133.
- Mallowan, M. E. L. and Rose, J. C. (1935) Excavations at Tall Arpachiyah, 1933. *Iraq* 2, 1–178.
- Nieuwenhuyse, O. P. (2000) Halaf settlement in the Khabur headwaters. In B. Lyonnet (ed.) *Prospection Archéologiques Archéologie du Haut-Khabur Occidental (Syrie du N. E.)* 1, 151–260. Beirut, Institut français d'archéologie du Proche-Orient (IFAPO).
- Nishiaki, Y. and Matsutani, T. (eds) (2001) *Tell Kosak Shamali. The Archaeological Investigations on the Upper Euphrates, Syria. Chalcolithic Architecture and the Earlier Prehistoric Remains*, Vol. 1, Tokyo, University Museum, University of Tokyo.
- Tsuneki, A. and Miyake, Y. (eds) (1998) *Excavations at Tell Umm Qseir in Middle Khabur Valley, North Syria. Report of the 1996 Season*, Tsukuba, Department of Archaeology, Institute of History and Anthropology, University of Tsukuba.
- Tsuneki, A., Miyake, Y. and Akahane, S. (1996) *The Excavations at Tell Umm Qseir 1996*, Tsukuba, University of Tsukuba.
- von Oppenheim, M. F. (1931) *Tell Halaf: a new culture in oldest Mesopotamia*, London, G. P. Putnam's Sons.
- Watson, P. J. (1983) The Halafian Culture: a review and synthesis. In T. C. Young Jr, P. E. Smith and P. Mortensen (eds) *The Hilly Flanks. Studies in Ancient Oriental Civilization*, 231–250, Chicago, Oriental Institute of the University of Chicago.
- Watson, P. J. and LeBlanc, S. A. (1990) *Girikihacyan: a Halafian site in southeastern Turkey*, Los Angeles, University of California.
- Woolley, C. L. (1928) The painted pottery of Susa. *Journal of the Royal Asiatic Society of Great Britain and Ireland* 60, 35–50.
- Woolley, C. L. (1934) The prehistoric pottery of Carchemish. *Iraq* 1, 146–162.

Was White Ware always white? Looking into the world of painted plaster

Bonnie Nilhamn

Abstract

White Ware, a plaster material rather than a ceramic material, was very rarely decorated and paint seems to occur even more seldom. Pigments have only been identified on some few sherds and then only as “blobs and dots” or as larger coating without any sophisticated patterns. This seems odd as plaster itself makes an excellent surface for paint not only due to its aesthetic appearance of being white which enhance other colours but also from a technological aspect of being an excellent binder for the pigments (*cf.* fresco techniques). Painted plaster does occur in the Neolithic period but mostly as architectural features like wall and floor paintings or as intriguing objects like the plastered human skulls found in Jericho.

This paper aims to explore the question of why we find so few painted White Ware objects.

Introduction

While this volume is about painted pottery, it is instructive to recall that in later prehistory people used various materials for making portable, sometimes colourful, containers including unfired clay, stone, reed, leather, cloth and plaster. This paper focuses on containers made of plaster, known as White Ware. White Ware containers were very rarely decorated and even more seldom painted (Nilhamn and Koek 2013). Pigments have so far only been identified on very few plaster sherds and then only as simple curvy lines and “blobs and dots” or as a larger coating without any sophisticated patterns. This seems odd as plaster itself makes an excellent surface

for painting. This is not only because of its very light surface appearance which enhances the contrast with other colours applied to it (Nieuwenhuyse this vol.), but also because of the technological tendency to bind pigments to the material (*cf.* fresco techniques).

Indeed, painted plaster is not uncommon in the Neolithic period, but it was mostly used for architectural features like wall and floor paintings (e.g. Mellaart 1967; Kuijt 2001; Arkun 2003; Erdogu 2009; Fowler 2011; Coqueugniot 2014) or as intriguing ritual objects such as the plastered human skulls found in the Levant and Anatolia in the Pre-Pottery Neolithic (Griffin *et al.* 1998; Goren *et al.* 2001). So what might be the reasons for the lack of painted White Ware? In this paper we will discuss four possible explanations, taking into account both the physical properties of the different materials and the intended use of White Ware containers: a limited production, surface degradation, the archaeologists' failure to detect fugitive pigments, and, finally a real absence of painted decoration.

Plaster in prehistory

To start, what do we mean by plaster? The archaeological definition of plaster can be as slurry as the material itself. The term has been abused for several things and not everything is plaster in the true form. Mud plaster, for instance, does not belong to this category. This earthen mixture of clay, sand and fibres such as straw, hair and dung is a common material in architecture, but it is not plaster in the technical sense.

What we may genuinely call plaster is made through pyrotechnology by firing rock. Two main categories are attested in the ancient Near East, *viz.* 1) Gypsum plaster (hydrated calcium sulphate, $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) which derives from gypsum rock, and 2) Lime plaster (calcinated calcium carbonate, CaCO_3) which derives from lime stone or shells. In Roman times a third group of thermally altered materials was developed, known as hydraulic lime, which is a type of cement containing large amounts of quartz and hydrated aluminium silicates that produce a hard mixture insensitive to hydration. Prehistoric White Ware, however, was only made from the first two categories, gypsum and lime.

The preferred type of plaster differed both regionally and culturally. Three key factors influenced local choices: geomorphology, economy, and intended function. Geomorphological factors pertain to the geological-environmental settings of a site. Thus, due to the geological occurrence of the raw material, lime plaster is mostly found in the Levant and in Anatolia. Gypsum on the other hand was mostly used

along the Tigris and Euphrates rivers, in the grasslands and steppes of northern Syria, and in Egypt. In Egypt lime plaster is less often attested but there is evidence that it was used in the mortar for the Cheops pyramid at Giza and the temple of Hathor at Timna on the Sinai Peninsula (Vicat 1997; Gourdin and Kingery 1975). Local availability is however not the whole answer. Tell Sabi Abyad is situated in a lime stone region but the main part of the White Ware found at the site was made of gypsum plaster. The closest gypsum outcrop is one day walk south of the site. This means that the plaster producers chose to make a two day travel to get the right quality and material.

Economic factors pertain to the time, energy and efforts needed to produce the plaster. Lime plaster production requires much more heat (750–900°C) and a longer settling time than gypsum (80–150°C). In addition lime production presents various dangers to the craftsperson due to the chemical reactions.

Functional demands of White Ware containers, finally, contribute to differences in material composition. Lime and gypsum plaster represent two entirely different production technologies, and even if the final results often look similar, the plasters have different performance properties. The solubility of lime in water is 8.0×10^{-9} while for gypsum it is 2.3×10^{-4} (depending on the acidity of the water). This means that lime plaster resists tear and wear much better. It was therefore preferred in contexts that required durable plasters, for instance architectural applications like basins, floor and walls. Gypsum was preferable for making smaller containers and for indoor architectural features. It is fairly waterproof as long as the softened contact surface is not exposed to significant mechanical friction like scraping or hard brushing (Gourdin and Kingery 1975; Kingery *et al.* 1988; Goren and Goldberg 1991; Nilhamn *et al.* 2008; Nilhamn and Koek 2013). Plaster of either gypsum or lime has also been found as a coating for Standard Ware and Dark-Faced Burnished Ware ceramics, presumably to make them less porous (Nieuwenhuyse *et al.* 2010; Nieuwenhuyse and Nilhamn 2011).

Neolithic plasters, including White Ware containers made of either lime or gypsum, were in some cases tempered with organic or mineral inclusions to improve strength and hardness and to reduce shrinkage. As with pottery, it is not always evident to distinguish tempers from raw materials. For instance, calcareous tempers are easily absorbed by the calcareous binder material to the degree that their identification may yield a misleading proportion. This especially holds if old plaster material was crushed down and re-used. Grains of silica can be either

sand or clay minerals (Ashurst 1983, 20). Retarders like limestone (CaCO_3), soda (Na_2CO_3), but also bone glue, even milk and casein have been used until modern times to make gypsum plaster dry more slowly. Catalysts like salt (NaCl) and potassium hydroxide (KOH) may also have been used (Freling 1993, 195). To what extent retarders and catalysts were used in the Late Neolithic remains unknown. The material studied so far gives some indications of the use of organic material like plant fibres, as suggested by the elongated voids characteristic of much White Ware.

The earliest evidence for deliberate use of uncalcined lime plasters is attested in the Geometric Kebaran (12,000 cal BC) at Lagama North VIII on the Sinai Peninsula (Kingery *et al.* 1988, 220; Rollefson 1990, 33). Here microliths were hafted with lime plaster. Plaster was also used by the Natufians in the Levant. In the Hayonim Cave a lime hearth dated to c. 10,400–10,000 cal BC (Kingery *et al.* 1988) representing the earliest evidence so far for deliberate calcined lime production (Chu *et al.* 2008). At Mallaha lime plaster was used for architecture, mostly for plastering pits and floors. The early use of plaster was most probably an individual achievement with much trial and error. Only after it had been proven safe and reliable the technology spread to larger areas. This happened during the seventh millennium. In the Late Neolithic period (c. 7000–5300 BC) thermally processed (calcined) lime began to be more commonly used as an architectural plaster. Possible plaster kilns have been found at Tell Ramad, Tepe Ganj Dareh, Abou Goush, and 'Ain Ghazal (Gourdin and Kingery 1975; Garfinkel 1987; Kingery *et al.* 1988; Rollefson 1990).

The development of plaster production can only be understood from a larger social perspective. To fully realize its potential, communities and artisans needed to have access to social networks for getting the raw material from quarries, transport it, produce it and distribute it. Making plaster is a demanding, multi-step process and most probably involved the whole community (Goren and Goring-Morris 2008). Production was most likely seasonal as too hot or too wet conditions would spoil the plaster slurry (Nilhamn 2011). The communal aspect of plaster production may help explain why initially plastering was mainly applied in communal buildings. At some sites, however, such as at Tell Halula (Guerrero *et al.* 2009) painted plastered floors seem to have been common also in domestic quarters. Plastered pottery and White Ware may have been manufactured as by-products when larger quantities of plaster were made for instance for re-plastering buildings.

Painted plaster in architecture

Plaster is commonly used for architectural features today (*stucco*) and was incorporated in architectural art very early in the Neolithic of the Near East. Within wall art most times the fresco is made on lime plaster. Frescos can be made in two ways depending on the dryness of the plaster, viz. a *Buon fresco* on wet plaster, or a *secco* on dry plaster. A *buon fresco* is more durable than a *secco* as the still wet plaster binds the pigment particles. The ground pigments are mixed with water and painted thinly on the fresh plaster. As the plaster dries, the pigment particles are locked into the surface of the wall. While the adhesive strength is a distinct advantage, one issue with *buon frescos* on gypsum is the limited time available. While lime dries after around 10–12 hours, gypsum dries after only 2 hours. A problem with frescos on lime plaster is that fresh lime is alkaline and reacts negatively with pigments from copper or lead, leaving the artist a limited range of colours. Moreover, pigments are not encased in a binder material, which makes them vulnerable to atmospheric impurities (Reed 1983). In contrast, a *secco* employs a binder to fix the pigment on the dry plaster. Materials such as egg, glue or oil may be used. Even though the result is less durable the painter may prefer a *secco* as the range of colours are now unlimited and mistakes can simply be painted over.

Historical sources, such as Vitruvius, tell us that lime stucco should be of the best quality and tempered a long time before its use. The Greeks hardened their stucco work by adding thin coats of marble polished with chalk or marble (Vitruvius 1931, Book 2: 5). Pliny the Elder informs us in his *Naturalis Historia* that “it is also a fact that the slurry improves with keeping. In the old building laws is to be found a regulation that no contractor is to use a slurry that is less than three years old” “*ne recentiore trima uteretur redemptor*” (Pliny 1962, Book 36: LV). If calcined lime plaster is not slaked for at least 3 weeks it will make the result blister. Further, drying should not be too fast or at too high temperatures as this would cause cracks and flaking to occur (Ashurst 1983).

Archaeological studies of plaster paintings have tended to focus on those from the classical period, starting with the Bronze Ages in the Aegean and the eastern Mediterranean. Generally they have favoured an iconographical approach. Already at the end of the nineteenth and in the early twentieth century important discoveries were made at Tiryns, Orchomenos, Thebes and Myceanae and later on at Pylos on the Greek mainland, at Knossos on Crete and at Phylakopi on Milos. The Minoan and the Mycenaean used both types of fresco. The earliest *fresco secco* is attested in the palaces of Phaistos and Knossos

(2000–1700 BC), while the famous *the Toreador* in the latter palace is a nice example of *buon fresco* (1550 BC) (Brysbaert *et al.* 2006). Egyptian wall paintings were usually *a secco*. More recently plaster paintings have been studied at Akrotiri (Thera in Greece), Tell el-Dab'a (Egypt), Miletus (Turkey), Tel Kabri (Israel) and Qatna (Syria) (Niemeier 1991; Niemeier and Niemeier 2000; 2002; Brysbaert *et al.* 2006).

Returning to the Neolithic of the Near East, the sites of Djade al-Mughara, Mureybet and Halula in northern Syria and Çatalhöyük in Turkey have yielded some of the earliest examples of wall paintings on plaster, dating back to the ninth and eighth millennia BC. In many cases these plaster reliefs had been directly moulded onto the walls. In Djade al-Mughara, perhaps the world's oldest stucco, the polychrome *a secco* painting was based on a white layer of calcite or dolomite plaster to which red ochre and black carbon were added to form an abstract geometric design. The 11,000 year old paintings were found in extraordinarily good condition (Coqueugniot 2014, 100). The use of colours within architecture, and red in particular, raises the question whether colours were applied merely for aesthetic reasons or if it they also had a deeper symbolic connotation (Gage 1999; Jones and Bradley 1999; Jones and MacGregor 2002). Red, alongside black, the oldest colour deliberately used, may be seen as a universal mark in human colour perception. In many cultures it can symbolize both life and death. The use of the red colour on plastered features in certain buildings may be associated with public or domestic rituals (Erdogu 2009). At the Aceramic Neolithic (8000–7500 cal BC) sites Aşıklı Höyük and Musular, red painted lime plastered floor and interior walls have been found in some of the buildings (Erdogu 2009).

At Çatalhöyük East (7500–6200 cal BC), red ochre or cinnabar was often directly applied on the white plaster wall. Here the paintings are more elaborate and depict geometric figures, and humans killing bulls and other wild animals (Mellaart 1967; Arkun 2003; Fowler 2011). During the Early Chalcolithic period (c. 6000–5500 cal BC) of Central Anatolia, red coloured plaster was still used for floors and walls in certain buildings at Çatalhöyük West and Canhasan and a wall painting has been found at Köşk Höyük (Erdogu 2009). Evidence of repeated re-plastering and re-painting at Çatalhöyük suggests that this formed part of returning, perhaps annual ritual activities. In these rituals the symbolic “re-fleshing” of buildings (and ancestors, which we will come to) may have been central (Arkun 2003; Hodder and Meskell 2011). Painted plaster also figured in domestic rituals. To commemorate the location of a grave the inhabitants of 'Ain Ghazal

(Levant) often marked their white plaster floors with red paint (Kuijt 2001).

Painted plaster as objects

Perhaps the most famous plastered and painted objects in Near Eastern Neolithic are the plastered skulls. The earliest examples date from the middle Pre-Pottery Neolithic B (8200–7500 BC) and are concentrated in the Levant. The tradition continued until the late PPNB (7500–7000 BC) after which it disappeared. The practice reappeared during the Pottery Neolithic (7000–5000 BC) in Anatolia (Fletcher *et al.* 2008; Marchand 2011). Plastered skulls are sometimes referred to as “common”, but this is an exaggeration. In the PPNB plaster skulls did not exceed 10% of the total number of human burials (Belfer-Cohen and Goring-Morris 2011, 215). Since the first discovery in the early 1950s in Jericho only 90 modelled skulls have been found in the Levant and Anatolia (Croucher 2012, 94).

In the Levant plastered skulls have been recovered from Ain Ghazal (Butler 1989; Simmons *et al.* 1990; Rollefson *et al.* 1992; Griffin *et al.* 1998); Jericho (Kenyon and Holland 1981); Beisamoun (Ferembach and Lechevallier 1973; Ferembach 1978); Nahal Hemar (Griffin *et al.* 1998; Goring-Morris 2000); Yiftahel (Khalaily *et al.* 2008); Kfar Hahoreh (Goring-Morris 1991; 2000); Tell Ramad (de Contenson 1962; 1967; 1969; 1971; 1985; 1992) and Tell Aswad (Stordeur 2003). Some skulls were found individually, others in groups. The treatment of the mandible, eyes and ears differs. Most of these Levantine plastered skulls, although certainly not all of them, were painted with ochre or cinnabar. Even though there are variations between the sites, these skulls should be conceived of as a shared regional system (Kuijt 2008).

In Anatolia, plastered or painted skulls have been recovered from Çatalhöyük and Köşk Höyük. These skulls were found in various combinations, either individually or in groups of two or five (Bonogofsky 2003; 2004; 2005; Erdogu 2009; Croucher 2012). However, in Anatolia the combination of plastering and painting was much less common than in the Levant. The earliest example was found at Late Neolithic Çatalhöyük East in 2004. This plastered and red painted skull is not only the earliest example of skull removal in Anatolia so far, it is also the oldest with painted plaster. The skull is of an adult man and was found held in the arms of a female. The eyes and nose were carefully modelled and the plaster was painted with red ochre (Hodder 2004; Hodder and Meskell 2011; Croucher 2012). In 2012 a second painted and partially plastered mandible was found

in Çatalhöyük (Haddow 2012).

The act of re-plastering and re-painting that we already saw in architecture we also find in the tradition of plastering skulls. Croucher states that in some occasions there is evidence for the removal of old plaster and the re-plastering of the skull, perhaps as to give it new life (Croucher 2012, 149). Kuijt sees the repeated plastering and painting as a way the community dealt with social memorialization and the identity of both specific individuals and the community itself (Kuijt 2008).

The idea of using plaster as a base for painting “the dead” is also represented in Egypt when decorating coffins and mummies. The earliest cartonnage mask dates to the first intermediate period, even though a few surviving examples of the Old Kingdom have thin layers of plaster. The technique used was the *gesso* on cartonnage. Egyptians stiffened linen with gypsum plaster.

Finally, the archaeology suggests an intriguing link between plaster vessels and burial practices. At Tell Ramad White Ware containers and plastered painted clay balls were found in association with plastered human skulls (de Contenson 1967; 2000). A similar connection is found in the practice of putting the de-fleshed body parts and skull in containers of plastered basketry, plastered pottery or White Ware, as with the decapitated skull found in a plaster-lined basketry at Domuztepe, Turkey (Croucher 2012).

At the site of Pınarbası (Baird 2007) and Çatalhöyük (Hodder and Meskell 2011) animal bones, claws, talons, horns and tusks embedded in plaster have been found and sometimes incorporated into buildings but have also been used as mobile objects. Baird (2007) proposes that these items may have been kept for exchange.

Painted White Ware in the Late Neolithic

In Upper Mesopotamia and the Northern Levant, the production and use of containers made of plaster (White Ware) peaked in the Early Pottery Neolithic (c. 6700– 6200 BC), both in quantity and in typological variability. Given the ubiquity of plastered and painted objects already quite early in the Near Eastern Neolithic, one might therefore expect a rich repertoire of painted and plastered containers. Curiously, attestations of *painted* White Ware are very rare, better said *extremely* rare.

Painted White Ware containers have so far only been attested at some Syrian and Lebanese sites. In Tell Ramad 25 sherds have been found with red paint. Twelve of these showed lines. One sherd was completely covered by red paint on the exterior (de Contenson 2000,

245–354). At Shir a similar pattern with broad red stripes has been detected on some sherds (Nieuwenhuyse 2009). At Tell Sukas reddish-brown paint has also been noticed on the interior side of at least one large conical White Ware bowl (Riis and Thrane 1974, 26). Either this colouration was a decoration or the vessel contained paint at some stage. Two of the sherds also show matt brick-red paint. One has a horizontal band at the base with an oblique stripe on the exterior side whereas the other has paint around the rim and both sides (Riis and Thrane 1974, 77). At Ras Shamra painted sherds are attested but not further described (de Contenson 1963; 1992). In addition to painted White Ware, painted or red-slipped decoration is sometimes observed on plastered pottery, examples of which are known from Tell el-Kerkh, Shir and Tell Sabi Abyad (Nieuwenhuyse 2009).

At Tell Sabi Abyad faded dots and wavy lines were detected on a few sherds (Figs 18.1/Colour Pl. 26 and 18.2/Colour Pl. 27). Further there are some open vessels that have a reddish hue covering the interior surface (Fig. 18.3/Colour Pl. 28) (Nilhamn 2011). The White Ware has been extensively analyzed, employing a combination of mineralogical, chemical and elemental analytical methods. These gave mixed results. We shall briefly discuss XRF, residue analysis and technical imaging.

We employed a handheld device for X-Ray Fluorescence analyses to investigate some of the possible instances of painted plaster. Samples from reddish stained gypsum plaster indicate the presence of iron oxide of hematite (Fe_2O_3). Quite possibly this was used as colouring material. Most probably it derived from natural red ochre. Further, traces of aluminium and silicon indicate the possible presence of a clay mineral although this may also have derived from mineral temper of the ware itself. The XRF showed that some White Ware samples carrying black traces contained manganese. Although, admittedly, the values were too low to be significant we cannot exclude the possibility of manganese-based paint. The black pigment in most cases was likely derived from the more common carbon in most cases. Carbon as an element is unfortunately undetectable using XRF.

Potentially, the orange-red colouration found inside some of the White Ware bowls may have derived from blood. This is not as impossible as it may seem, as blood is a useful binder for plaster and leaves a similar pinkish-orange hue. Nonetheless we considered it unlikely that any possible blood traces would have survived enough to be physically or biochemically identified. Indeed, a pilot residue analysis targeted on lipids of one of the White Ware containers did not yield any traces of biomarkers like cholesterol that would indicate an

animal derived content. This does not exclude the possibility that blood was contained in the vessel. Blood residue is very difficult to detect, and survival of blood on Neolithic materials is extremely exceptional (Kooyman *et al.* 1992; Craig and Collins 2002; Field and Privat 2007). Experimental research by the author showed that the survival of lipids in plaster is reduced due to the physical features of the material itself. White Ware is characterized by a rapid uptake of liquids but at the same time it leaches at a fast rate. Further, its high porosity makes the material susceptible to bio-deterioration (Nilhamn 2012). Future residue studies in plaster containers may more successfully target proteins survival; this has so far not been investigated.

Technical imaging by itself is not sufficient for the identification of pigments but it may be used as a guideline to discover possibly painted areas. Some pigments exhibit a bright fluorescence under ultra violet light, and therefore the use of ultra violet light (UV) has been a standard methodology for identifying paint composition. During the field processing in 2009, we used long wave (366 nm) UV light to inspect all excavated WW material from the campaign of 2008 (in total 6638 sherds). This produced several instances of fragments possibly carrying a pigment, but we judged these observations to be insufficiently conclusive. Future studies including Infrared false colour may possibly reveal more on this matter.



Figure 18.1. (Colour Pl. 26). Tell Sabi Abyad. White Ware sherd showing black charcoal stripes on the interior (photo: author).



Figure 18.2. (Colour Pl. 27). Tell Sabi Abyad. White Ware sherd showing red wavy lines on the exterior (photo: author).



Figure 18.3. (Colour Pl. 28). Tell Sabi Abyad. White Ware sherd showing red coated interior (photo: author).

Why so scarce?

Four possible explanations for the scarcity of painted White Ware containers in the archaeological record can be suggested:

- A. Painted White Ware was, in fact, a limited item manufactured for special occasions;
- B. Paint is overlooked by the excavators;
- C. The paints and pigments did not survive degradation processes;

D. White Ware was in most cases never deliberately painted; the examples that we know of are unintentional side effects from other human activities and post-depositional processes.

Evidently, these options are not mutually exclusive. Limited as they are, the examples listed above suggest that painted White Ware vessels existed in the later Neolithic. At the same time, they suggest that painted White Ware was very rare indeed (option A).

In part, their scarcity will have suffered from them being often overlooked by the excavators (option B). Excavators generally are unaware of the possibility that the plaster surface may be painted. They may therefore give insufficient care to the proper identification of fragile pigments. Upon excavation, following a rapid change in depositional climate, the soft, partly hydrated and vulnerable object falls prey to sun light, dehydration and oxidation but also to abrasive wear and tear by the excavator. How many fragile surface decorations have perished under the brush of a too eager archaeologist, we do not dare to think about. At Tell Sabi Abyad, the author banned hard abrasive cleaning with nail brushes and instead introduced soft brushes and air blower to remove dirt from the White Ware. After cleaning the objects were dipped into clean water to enhance the surface aspects. The result was overwhelming and the numbers of White Ware objects with markers, incisions, basketry impressions and possible pigments rose substantially.



Figure 18.4. Tell Sabi Abyad. Burnt white ware sherd (photo: author).

Taphonomic processes play an important role in minimising chances of identifying painted plasters (option C). The best preserved paints

are those that were fired with the pottery and so became incorporated into the clay matrix. This puts painted plaster vessels at a disadvantage: they cannot be fired as this would make the plaster disintegrate (Fig. 18.4). Therefore only the fresco techniques apply, *i.e.* to paint either before the material dries, in which case the pigments become incorporated into the material, or afterwards on the dry product. The consequence is a higher vulnerability of the pigments.

Damage of paint can be divided into two groups: aesthetic damage like loss of colour or discolouration and stains, and structural damage like cracks and loss of mechanical strength causing disintegration of paint and layers. There are several threats for paint on plaster including bio-deterioration, moisture and humidity fluctuation, dehydration, salts and external friction and stress. A plaster painting has a rather complex stratigraphy of paint, plaster and support material. The differences in composition and diffusion behaviour between layers or materials like the fabric supporting the painting and the organic binder of the paint can cause stress and lead to loss of cohesion. Cracks in the material enlarge the risk for loss. Crack formation may occur during shrinkage or due to external factors like an earthquake or heavy traffic.

Ancient paints would generally have comprised of two components: an inorganic mineral or an organic extract from plants or animals as the pigment, and a medium (water) or an organic substance (oil, casein, yolk, urine, saliva) as the binder. The organic materials of the ancient paints are highly susceptible to microbial degradation by bacteria, algae and fungi (Fig. 18.5). Biodegradation varies with environmental conditions (humidity, pH, light and temperature). Cyanobacteria and algae contribute to weathering processes of plaster (Ciferri 1999). As the plaster is a porous material with high hygroscopic performance it is easily affected by environmental change. Plaster that survived thousands of years in the ground can be affected by microbial attacks within days after excavation if stored improperly, for instance in a closed plastic bag.



Figure 18.5. Mould visible on Fresco Secco tempera ochre (photo: author).

The most common damage is caused by moisture, especially if the painting was executed *a secco*. Delamination of surface material from the object and flaking off of material which has become delaminated (exfoliation) often result from alternating wetting/drying or heating/cooling cycles. Plaster has a high porosity, which means a large area exposed to degrading agents. The high permeability makes it easy for liquids and gases to penetrate the pores. Salt solutions, water vapour and atmospheric pollutants enter easily; the pores easily trap dirt causing discolouration. Even though plaster is alkaline the hygroscopic nature of plaster makes it susceptible to mould and mildew. Standing water, capillary rise and surface condensation can cause as much damage as running water. A too dry environment on the other hand also forms a threat for painted plaster, as its physical constitution needs an amount of moisture to bind. Loss of adhesion will result in disintegrated paint, which may turn into powder and will be extremely vulnerable. This is especially true for gypsum in dry climates, as it will easily dehydrate, causing it to crumble.

An often acknowledged source of damage to painted plasters are soluble salts. Liquid water will transport any salts in solution to the surface. When the water evaporates the salt remains at the surface. When they crystallize their volume increases (Fig. 18.6). Crystallization underneath the surface causes bursts, while crystallization at the surface causes growth of crystal aggregates that lead to flaking and disaggregation of the plaster and paint. Another type of damage caused by expanding minerals results from unslaked

lime particles in the render. As the particles absorb moisture they convert from calcium oxide to calcium hydroxide, increasing in volume and causing bursts and bubbles.



Figure 18.6. Gypsum crystallization (efflorescence).

A further disadvantage is that most ancient painted plaster that we know of are objects or features that will have been less affected by touching, and by tear and wear, such as statues or wall paintings. Imagine then the worn-out surface of a container heavily used on perhaps a daily basis, such as White Ware containers or plastered pottery vessels. The preservation of paint then starts to become much less obvious.

Finally, we should ask if specific instances of pigment observed on the plasters were intentional or accidental – our option (D). In most cases the traces of “paint” are on the exterior surfaces, sometimes as evident broad lines that without doubt are put there deliberately. Harder to explain are the ochre traces found on the *inside* of vessels, sometimes in even closed shaped vessels; would this not be a waste of expensive pigments? Rather than being “decoration” perhaps these vessels were used to fabricate or store paints? In other instances covering stains may have been the result of an organic based coating added to reduce the permeability of the vessel, not to paint it.

It is not always easy to distinguish between a deliberate paint and a homogeneous patina of dirt. Plaster is very porous and hygroscopic and will easily absorb dirty liquids resulting in staining. Paint and stains are easily confused: and are some lines of black charcoal

intended as a painted design or are they mere accidental traces of scraping the object with burnt wood? A White Ware container from Tell Sabi Abyad is a good case in point (Fig. 18.1, above).

To conclude, we initiated experimental studies to test pigment survival on (modern) gypsum plaster. Ground charcoal from birch wood and dark red sediment ochre were applied on both dry and wet bars of gypsum (Fig. 18.7, 1, 2). Besides using them both as dry pigment directly on the plaster, we mixed one batch with water and one with egg yolk (*tempera*) as binder. It was noticed that *tempera* paint that was put on too thickly did not merge with the plaster but stayed as a distinct, glossy layer above the plaster.

Needless to say all three methods produce nice hues and colourations. Our main question was: how easy is it to get rid of the paint? Splashing with water took some paint off, running water even more; physical rubbing was fairly successful, too (Fig. 18.7, 3, 4). Sweaty hands were also effective, a lot more than we expected. Keeping the samples outdoor exposed to the Dutch unstable weather with frequent rains, frost and hot summer sun for a period of 18 months led to disastrous results of the paint endurance (Fig. 18.7, 5, 6). Algae and moulds thrived and worked as catalyser for the weathering processes (Fig. 18.5). In the end, *buon fresco* technique and the *tempera* paint on dry gypsum showed the best survival rate. The latter stayed best visible but was still vulnerable to scraping, especially if the layer had been put on too thick. The samples with dry pigments were easily smudged and faded. All samples, however, even after long wear and tear removing most of the visual paint, still showed a slightly stained area that became enhanced when moistened.

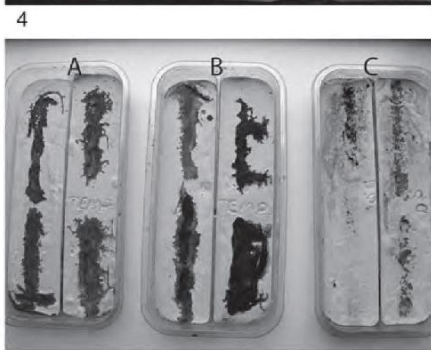
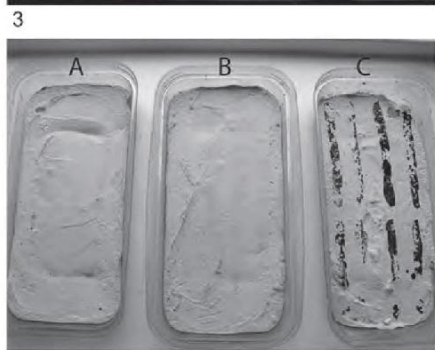
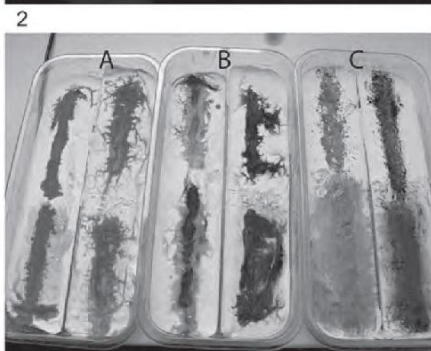
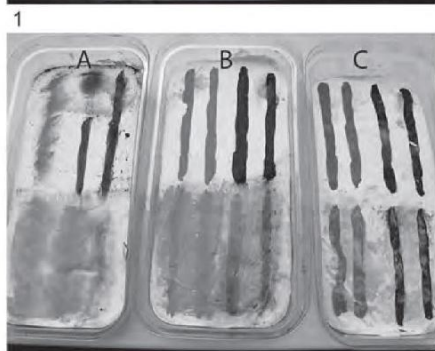
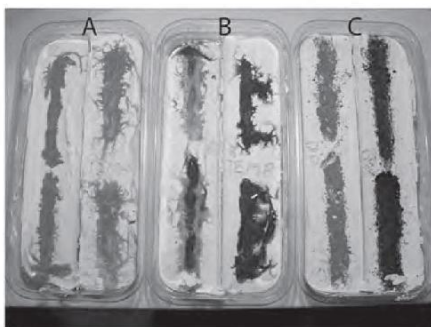
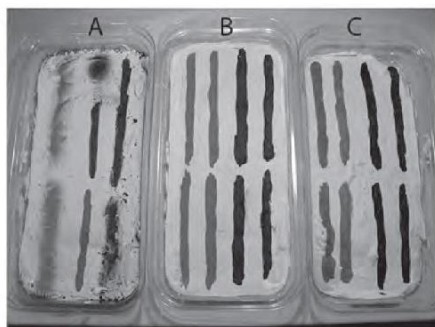


Figure 18.7. Experimental study of pigment survival on modern plaster. 1: “Fresco Secco” (dry plaster) **Day 1**, from left: a) dry pigment: ochre, charcoal; b) wet pigment (pigment + water): ochre and charcoal; c) tempera (pigment + egg yolk): ochre and charcoal. 2: “Buon Fresco” (wet plaster) **Day 1**, from left: a) wet ochre, tempera ochre; b) wet charcoal, tempera charcoal; c) dry ochre, dry charcoal. 3: “Fresco Secco” **1 week** + smudged, from left: a) dry pigment: ochre, charcoal; b) wet pigment (pigment + water): ochre and charcoal; c) tempera (pigment + egg yolk): ochre and charcoal. 4: “Buon Fresco” **1 week** + smudged, from left: a) wet ochre, tempera ochre; b) wet charcoal, tempera charcoal; c) dry ochre, dry charcoal. 5: “Fresco Secco” **18 months**, from left: a) dry pigment: ochre, charcoal; b) wet pigment (pigment + water): ochre and charcoal; c) tempera (pigment + egg yolk): ochre and charcoal. 6: “Buon Fresco” **18 months**, from left: a) wet ochre, tempera ochre; b) wet charcoal, tempera charcoal; c) dry ochre, dry charcoal.

Conclusions

For long we moderns believed that ancient Greek, Roman and Assyrian statues and reliefs lacked colours. In our eyes they only

looked right if they were bright white. We know today, of course, that these statues and reliefs were often originally brightly coloured (Verri *et al.* 2009). Similar considerations may apply to the study of prehistoric White Ware.

Archaeologists have sometimes been somewhat biased, accepting at face value that the so-called “White” Ware, as its name already states (in French: “*Vaisselle Blanche*”), can only have been unpainted. Perhaps for that reason they have neglected to seek out contradicting evidence. As this paper argues, there is the very likely possibility that pigment-like substances are frequently preserved on White Ware containers. We do not know for certain, however, to what extent we can infer intentional use of pigments as decoration. In some cases we may safely state that the dots and stripes were intentionally added, but in other cases we must remain more cautious. There always remains the possibility that the pigments now incorporated into the plaster are a side effect of another kind of use, like stains resulting from food processing.

When we find items that show traces of pigments we have to ask ourselves if it is likely that this kind of material is suitable for a combination “painted object – daily use”, or is it too vulnerable. Was it just an “altar piece” to see but not touch or was it repeatedly used? The practice of carefully re-painting and remodelling statues, walls, and skulls supports the idea that recurrent use, even though not necessary on daily basis, resulted in tear and wear damages that was seen as important enough to take care of (Arkun 2003). In any case, the study of pigments on White Ware so far suggests that pigments were most probably applied in a limited fashion, perhaps only for certain items not intended for everyday use.

From a techno-functional perspective we can conclude that even though plaster as a material is a good medium for painting “not-intended-to-touch” features such as walls or statues, it would have certainly have been less practical to paint portable White Ware containers. As the paints could not be fired into the pot, this made them susceptible to erosion, especially if the vessel was made of gypsum. The experimental test discussed above supports the notion that painted plaster was vulnerable in daily use: friction, humidity and even sweaty hands would have had devastating effects on the pigments. A worst case scenario for painted White Ware would be constant change in moisture in combination with water movement; conditions easily found in a prehistoric village. Even though pigments based on iron oxides or carbon would be fairly stable they are still vulnerable to erosion by direct contact. If the surface had not been

treated this would risk smudging delicate lines and figures. Burnishing does not seem to have been an option, as White Ware containers were usually not burnished. Nor is there any evidence so far for a protective top-coating. Yet, we should not dismiss entirely the possibility that people applied organic coatings of, for instance, oil, grease or wax. Such coatings would not have been preserved in plaster due to normal degradation processes, and with them the binding that kept the pigments intact would have disappeared.

We can only speculate on the reasons for employing plaster on vessels, floors or skulls. They may include hygienic, symbolic, decorative or status considerations. There is a conspicuous shift from the earlier Neolithic to the later Neolithic in the symbolic use of painted decoration. The practice of painting plaster had for long been mainly applied to static installations, but in the Late Neolithic it was transferred to mobile items like pottery. Erdogu states that certain designs may have had special symbolic meaning and may have been linked to special occasions (Erdogu 2009). The frequent association of painted plaster with funeral activities is striking. Plastering buildings must have been a major happening for the community and probably occurred at certain moments as part of seasonal activity, funeral, “marriage” or birth rituals. Re-plastering of humans, animals, objects and buildings may be seen as a way of preserving and keeping the cycle of life and death rotating. The ancient habitants of Tell Sabi Abyad chose to make a 2-day journey south for raw material. Ethnoarchaeological studies (Arnold 1985, 52) indicate that people are willing to make a considerable effort for travelling long distances to acquire materials that have a stronger symbolic meaning or purpose within the society. Plastered objects could as such be passed down from generation to generation. These items, easily passed around for display, may have obtained a ritual status of their own that was enhanced by the “ritual” paintings. Painted White Ware may fit into this frame of thought.

May we be so bold to suggest that these painted objects served as special objects for display rather than for daily use? They may have been used or owned by selected members of the community. Perhaps the colour red colour was associated with religious rituals. If so, the plaster vessels with red paint on the interior may have been used in ritual contexts, for instance as a mixing bowl to prepare paint for painting other objects or perhaps people, perhaps for an initiating rite or for a funeral.

On the other hand, we should probably not speculate too much. Perhaps once there was just this painter with some paint left over

after finishing a wall painting, glancing at these plain White Ware vessels standing outside the house, considering what a waste these expensive pigments were going to be, unless diverted to decorating these containers with some stripes and dots.

Bibliography

- Arkun, B. H. (2003) *Neolithic Plasters of the Near East Çatal Höyük Building 5, a Case Study*, unpublished MA thesis, Philadelphia, University of Pennsylvania.
- Arnold, D. (1985) *Ceramic Theory and Cultural Process*, Cambridge, Cambridge University Press.
- Ashurst, J. (1983) *Mortars, Plasters and Renders in Conservation*, London, Ecclesiastical Architects' and Surveyors' Association (EASA).
- Baird, D. (2007) Pınarbaşı: from Epipalaeolithic camp site to sedentarising village in central Anatolia. In M. Özdoğan and N. Başgelen (eds) *The Neolithic in Turkey: new excavations and new discoveries*, 285–311, Istanbul, Arkeoloji ve Sanat Yayınları.
- Belfer-Cohen A. and Goring-Morris A. N. (2011) Becoming farmers: the inside story the origins of agriculture: new data, new ideas. *Current Anthropology* 52/S4, 209–220.
- Bonogofsky, M. (2003) Neolithic skulls and railroadng epistemologies. *Bulletin of the American Schools of Oriental Research* 331/3, 1–10.
- Bonogofsky, M. (2004) Including women and children: Neolithic modelled skulls from Jordan, Israel, Syria and Turkey. *Near Eastern Archaeology* 67/2, 118–119.
- Bonogofsky, M. (2005) A bioarchaeological study of plastered skulls from Anatolia: new discoveries and interpretations. *International Journal of Osteoarchaeology* 15, 124–135.
- Brysbaert, A., Melessanaki, K. and Anglos, D. (2006) Pigment analysis in Bronze Age Aegean and eastern Mediterranean painted plaster by laser-induced breakdown spectroscopy (LIBS). *Journal of Archaeological Science* 33, 1095–1104.
- Butler, C. (1989) The plastered skulls of 'Ain Ghazal: preliminary findings. In I. Herskovitz (ed.) *People and Culture in Change: Proceedings of the Second Symposium of Upper Paleolithic, Mesolithic, and Neolithic Populations of Europe and the Mediterranean Basin*, British Archaeological Report S508, 141–145, Oxford, British Archaeological Reports.
- Chu, V., L. Regev, S. Weiner and E. Boaretto (2008) Differentiating between anthropogenic calcite in plaster, ash and natural calcite using infrared spectroscopy: implications in archaeology. *Journal of Archaeological Science* 35, 905–911.
- Ciferri, O. (1999) Microbial degradation of paintings. *Applied Environmental Microbiology* 65/3, 879–885.
- Coqueugniot, É. (2014) Dja'de (Syrie) et les représentations symboliques au IX^e millénaire cal. BC. In C. Manen, T. Perrin and J. Guilaine (eds) *La transition néolithique en Méditerranée*, 91–108, Paris, Errance-AEP.
- Contenson, H. de (1962) Poursuite des Recherches dans le sondages à l'ouest du temple de Baal, 1955–1960. Rapport préliminaire. In C. F. A. Schaeffer (ed.) *Ugaritica* 4, 477–519, Paris, Geuthner.
- Contenson, H. de (1963) New correlations between Ras Shamra and al-'Amuq. *Bulletin of the American Schools of Oriental Research* 172, 34–40.
- Contenson, H. de (1967) Troisième campagne de fouilles à Tell Ramad, 1966. Rapport préliminaire. *Annales Archéologiques Arabes Syriennes* 17, 17–24.
- Contenson, H. de (1969) Quatrième et Cinquième Campagnes à Tell Ramad, 1967–1968. Rapport préliminaire. *Annales Archéologiques Arabes Syriennes* 19, 25–30.
- Contenson, H. de (1971) Tell Ramad, a village of Syria of the 7th and 6th millennia B.C. *Archaeology* 24, 278–285.
- Contenson, H. de (1985) La region de Damas au Néolithique. *Annales Archéologiques Arabes Syriennes* 35, 9–29.
- Contenson, H. de (1992) Les coutumes funéraires dans le Néolithique Syrien. *Bulletin de la Société Préhistorique Française* 89/6, 184–191.
- Contenson, H. de (2000) *Ramad: Site néolithique en Damascène (Syrie) aux VIII et VII millénaires*

- avant l'ère chrétienne, Institut Français d'Archéologie du Proche-Orient, Bibliothèque Archéologique et Historique, 157, Beyrouth, Institut Français d'Archéologie du Proche-Orient.
- Craig, O. E. and Collins, M. J. (2002) The removal of protein from mineral surfaces: implications for residue analysis of archaeological materials. *Journal of Archaeological Science* 29, 1077–1082.
- Croucher, K. (2012) *Death and Dying in the Neolithic Near East*, Oxford, Oxford University Press.
- Erdogu, B. (2009) Ritual symbolism in the early chalcolithic period of Central Anatolia. *Journal for Interdisciplinary Research on Religion and Science* 5, 129–151.
- Ferembach, D. (1978) Étude anthropologique, les crânes surmodélés. In M. Lechevallier (ed.) *Abu Ghosh et Beisamioun: Deux Gisements du VII^e millénaire avant l'ère Chrétienne en Israël*, Mémoires et Travaux du Centre Recherches Préhistoriques Français de Jérusalem 2, 179–181, Paris, Association Paléorient.
- Ferembach, D. and Lechevallier, M. (1973) Découverte de crânes surmodélés dans une habitation du VII^e millénaire, à Beisamoun Israël. *Paléorient* 1, 223–230.
- Field, J. and Privat, K. (2007) Faunal remains: blood residue analysis. MS 35. In D. Pearsall (ed.) *Encyclopaedia of Archaeology* Vol. 2, 927–931, Oxford, Elsevier.
- Fletcher, A., Pearson, P. and Ambers, J. (2008) The manipulation of social and physical identity in the Pre-Pottery Neolithic – radiographic evidence for cranial modification at Jericho and its implications for the plastering of skulls. *Cambridge Archaeological Journal* 18/3, 309–325.
- Fowler, S. (2011) Into the Stone Age with a scalpel: a dig with clues on early urban life. *New York Times*, 7 September.
- Freling, W. J. F. (1993) *Stucwerk in het Nederlandse woonhuis uit de 17e en 18e eeuw: een onderzoek naar materiaalgebruik, de vormgeving en verspreiding van stucwerk uit de 17e en 18e eeuw in het Nederlandse woonhuis*, Delft, Eisma BV.
- Gage, J. (1999) Did colours signify? Symbolism in the red. *Cambridge Archaeological Journal* 9/1, 110–112.
- Garfinkel, Y. (1987) Burnt lime products and social implications in the Pre-Pottery Neolithic B villages of the Near East. *Paléorient* 13/1, 69–76.
- Goren, Y. and Goldberg, P. (1991) Petrographic thin sections and the development of Neolithic plaster production in northern Israel. *Journal of Field Archaeology* 18, 131–138.
- Goren, Y. and Goring-Morris A. N. (2008) Early pyrotechnology in the Near East: experimental lime-plaster production at the Pre-Pottery Neolithic B site of Kfar HaHoresh, Israel. *Geoarchaeology* 23/6, 779–798.
- Goren, Y., Goring-Morris, A. N. and Segal, I. (2001) The technology of skull modelling in the Pre-Pottery Neolithic B (PPNB): regional variability, the relation of technology and iconography and their archaeological implications. *Journal of Archaeological Science* 28, 671–690.
- Goring-Morris, A. N. (1991) PPNB Settlement at Kfar HaHoresh in Lower Galilee: a preliminary report of the 1991 season. *Journal of the Israel Prehistoric Society* 24, 77–101.
- Goring-Morris, A. N. (2000) The quick and the dead: the social context of aceramic Neolithic mortuary practices as seen from Kfar HaHoresh. In I. Kuijt (ed.) *Life in Neolithic Farming Communities. Social Organization, Identity and Differentiation*, 103–136, New York, Kluwer Academic/Plenum.
- Gourdin, W. H. and Kingery, W. D. (1975) The beginnings of pyrotechnology: Neolithic and Egyptian lime plaster. *Journal of Field Archaeology* 12/1–2, 133–150.
- Griffin, P. S., Grissom, C. A. and Rollefson, G. A. (1998) Three late eighth millennium plastered faces from 'Ain Ghazal, Jordan. *Paléorient* 24/1, 59–70.
- Guerrero, E., Molist, M., Kuijt, I. and Anfruns, J. (2009) Seated memory: new insights into Near Eastern Neolithic mortuary variability from Tell Halula, Syria. *Current Anthropology* 50/3, 379–391.
- Haddow, S. (2012) *Catalhöyük 2012 Skull retrieval curation and redeposition*. Blog, 24 August 2012. Available from <http://scotthaddow.wordpress.com/2012/08/24/catalhoyuk-2012-skull-retrieval-curation-redeposition/> (accessed 10.01.2014).
- Hodder, I. (2004) A season of great finds and new faces at Çatalhöyük. *Anatolian Archaeology*

- Hodder, I. and Meskell, L. (2011) A “Curious and sometimes a trifle macabre artistry”: some aspects of the symbolism in Neolithic Turkey. *Current Anthropology* 52/2, 235–263.
- Jones, A. and Bradley, R. (1999) The significance of colour in European archaeology. *Cambridge Archaeological Journal* 9/1, 112–114.
- Jones, A. and MacGregor, G. (eds) (2002) *Colouring the Past: the significant of colour in archaeological research*, Oxford/New York, Berg.
- Kenyon, K. M. and Holland T. A. (eds) (1981) *Excavations at Jericho, vol. III: the architecture and stratigraphy of the tell*, Oxford, Oxford University Press.
- Khalaily, H., Milevski, I., Getzov, N., Hershkovitz, I., Barzilay, O., Yarosevich, A., Shlomi, V., Najjar, A., Zidan, O., Smithline H. and Liran R. (2008) Recent excavations at the Neolithic Site of Yiftahel (Khalet Khalladyiah), Lower Galilee. *Neolithics* 2/08, 4–11.
- Kingery, D., Vandiver, P. B. and Prickett, M. (1988) The beginnings of pyrotechnology part II: the production and use of lime and gypsum plaster in the Near East. *Journal of Field Archaeology* 15, 219–244.
- Kooyman, A., Newman, M. E. and Ceri, H. (1992) Verifying the reliability of blood residue analysis on archaeological tools. *Journal of Archaeological Science* 19, 265–269.
- Kuijt, I. (2001) Place, death, and the transmission of social memory in early agricultural communities of the Near Eastern Pre-Pottery Neolithic. In M. S. Chesson (ed.) *Social Memory, Identity, and Death: intradisciplinary perspectives on mortuary rituals*, 80–99, American Anthropological Association, Archaeology Division 10. Washington DC, American Anthropology Association.
- Kuijt, I. (2008) The regeneration of life: Neolithic structures of symbolic remembering and forgetting. *Current Anthropology* 49/2, 171–197.
- Marchand, F. (2011) The modelling skulls in the ancient Near-East. *Tiempo y sociedad* 6, 5–41.
- Mellaart, J. (1967) *Catal Höyük. A Neolithic Town in Anatolia*, New York, McGraw Hill.
- Niemeier, B. and Niemeier, W.-D. (2000) Aegean frescoes in Syria-Palestine: Alalakh and Tel Kabri. In S. Sherratt (ed.) *The Wall Paintings of Thera, Proceedings of the First International Symposium. Petros M. Nomikos Conference Centre, Thera, Hellas, 30 August–4 September 1997*, 763–802, Athens, Petros M. Nomikos and Thera Foundation.
- Niemeier, B. and Niemeier, W.-D. (2002) The Frescoes in the Middle Bronze Age Palace. In A. Kempinski, N. Scheftelowitz and R. Oren (eds) *Tel Kabri. The 1986–1993 Excavation Seasons*, 254–298, Tel Aviv, Emery and Claire Yass Publications in Archaeology.
- Niemeier, W. D. (1991) Minoan artisans travelling overseas: the Alalakh Frescoes and the painted plaster floor at Tel Kabri (Western Galilee). In R. Laffineur and L. Basch (eds) *Thalassa. L’Égée Préhistoire et al Mer, Actes de la Troisième Rencontre Egéenne Internationale de L’Université de Liège, Station de Recherches Sous-Marines et Océanographiques (StaReSO), Calvi, Corse (23–25 avril 1990)*, *Aegaeum* 7, 189–201, Liège, Université de Liège.
- Nieuwenhuys, O. P. (2009) The late Neolithic ceramics from Shir. A first assessment, *Zeitschrift für Orient-Archäologie* 2, 310–356.
- Nieuwenhuys, O. P. and Nilhamn B. (2011) Water in the village. *Neo-Lithics* 2/10, 53–59.
- Nieuwenhuys, O. P., Akkermans P. M. M. G. and van der Plicht, J. (2010) Not so coarse, nor always plain – the earliest pottery of Syria. *Antiquity* 84, 71–85.
- Nilhamn, B. (2011) *White Ware of Tell Sabi Abyad, An Archaeometric Study*. Unpublished research paper, Amsterdam, Vrije Universiteit.
- Nilhamn, B. (2012) *Using the Right Pot – The Retrieval Probability of Milk Lipids Depending on the Material of the Containers during Laboratory Degradation Circumstances*. Unpublished MSc, paper Archaeometry, Amsterdam, Vrije Universiteit.
- Nilhamn, B. and Koek, E. (2013) Early Pottery Neolithic White Ware from Tell Sabi Abyad. In O. P. Nieuwenhuys, R. Bernbeck, P. M. M. G. Akkermans and J. Rogasch (eds) *Interpreting the Late Neolithic of Upper Mesopotamia.*, 289–296. Turnhout, Brepols.
- Nilhamn, B., Astruc, L. and Gaulon, A. (2008) White Ware – Near Eastern plaster containers. In L. Astruc, A. Gaulon and L. Salanova (eds) *Méthodes d’approch des premières productions céramiques. Etude de cas dans les Balkans et au Levant*, 63–72, Internationale Archäologie, Berlin, Marie Leidorf.
- Pliny (1962) *Natural History, Volume X: Books 36– 37*. Translated by D. E. Eichholz, Loeb Classical Library 419, Cambridge MA., Harvard University Press.

- Reed, K. (1983) *The Painters Guide to Studio Methods and Materials*, Englewood Cliffs, Prentice-Hall.
- Riis, P. J. and Thrane, H. (1974) *Sukas III. The Neolithic Periods*, Copenhagen, K. D. V. S.
- Rollefson, G. (1990) The uses of plaster at Neolithic 'Ain Ghazal, Jordan. *Archaeomaterials* 4, 33–54.
- Rollefson, G. O., Simmons A. H. and Kafafi, Z. (1992) Neolithic cultures at 'Ain Ghazal, Jordan. *Journal of Field Archaeology* 19, 443–470.
- Simmons, A. H., Boulton, A., Roetzel Butler, C., Kafafi, Z. and Rollefson, G. O. (1990) A plastered human skull from Neolithic 'Ain Ghazal, Jordan. *Journal of Field Archaeology* 17, 107–110.
- Stordeur, D. (2003) Des cranes surmodelés à Tell Aswad de Damascène (PPNB – Syrie). *Paléorient* 29, 109–115.
- Verri, G., Collins, P., Ambers, J., Sweek, T. and Simpson St. J. (2009) Assyrian colours: pigments on a neo-Assyrian relief of a parade horse. *British Museum Technical Research Bulletin* 3, 57–62.
- Vicat, L. J. (1997) *Mortars and Cements*. Shaftesbury, Donhead.
- Vitruvius (1931) *De Architectura, Volume I: Books 1–5*. Translated by Frank Granger, Loeb Classical Library 251, Cambridge, Harvard University Press.

Weaving and potting during the Late Neolithic period: are there textile patterns on the early painted pottery of Mesopotamia?

Catherine Breniquet

Abstract

In the nineteenth century scholars concluded that some geometric designs on pottery were imitations of textile patterns, and this traditional view is often used today to simplistically interpret geometric designs. This paper reopens the question of the relation between weaving and ceramic geometric designs. It emphasizes that geometry is not a matter of simply imitating the observable world; rather that its understanding requires a holistic, contextualized approach within the frame of the humanities and social sciences. Some correspondences between the crafts of weaving and potting exist but they are limited to specific details and associated with specific parts of the pots, suggesting that pots, baskets and cloth were understood as part of the same conceptual category in the past. The paper concludes with discussing the perspectives for understanding these linkages.

Introduction

Since the nineteenth century, many scholars working on different periods and cultures have emphasized the similarities between ceramic designs (and some wall paintings) and textile patterns (Van Gennep and Jéquier 1916; Mellaart 1971, 152–155; Frame 1986; Alfaro 1989; Berggren 1993; Feugère 2000; Halm-Tisserand 2010, 139–143; *etc.*). In most cases, these designs are geometric, such as the chevron or wavy lines on Greek geometric vases (Fig. 19.1). Supporting the idea that ceramics and textiles are connected are more

intricate designs (Fig. 19.2), which use a large set of colours and fringed elements.

However, it is hard to know whether a relationship between ceramic and textile patterns is universal because some ceramic traditions do not seem to be concerned with imitating textile patterns. The two series – ceramic designs and textile patterns – have never been directly compared: textiles tend to disappear from the archaeological record. A Hallstatt vase that has decorative patterns similar to a woven textile band preserved in salty sediment is a rare exception to the general absence of textiles from archaeological contexts (Grömer 2005, 82). However, the Hallstatt example suggests that such linkages could have been more common in the past than observed today. While the study of ceramics is well established, textiles are more challenging (Bier 1995; Breniquet 2008, 38–42). Thanks to new discoveries and synthetic reviews (Barber 1991; Gillis and Nosch 2007; Breniquet 2008; Michel and Nosch 2010), archaeologists have become much more aware of the need to recognize, identify, and understand textiles.

In this paper I will present some of the clearest examples from the early stages of Mesopotamian painted pottery to construct a general theoretical framework for the relationship between ceramic and textile decorations.

Status quaestionis

The link between the geometric designs on a pot and a *signifié* taken from daily life has been naively researched for a long time, and to understand the current state of research we must briefly refer to the history of archaeology and history of art. Prehistory emerged in the second half of the nineteenth century alongside the rise of the stratigraphic/geologic method and the first discovery of evidence for prehistoric peoples and their art. Since that time, the history of art developed alongside, but heavily influenced by, the disciplines of philosophy, aesthetics and history (Breniquet 2012). The predominant art-historical paradigm followed the Greek idea of *mimésis*: artistic forms were supposed to copy Nature or the observable world. Within this approach, there was little regard for geometric art, which was considered to be too universal and too timeless to find a place in the Western history of art (Golsenne 2010; Siebert 2010). Nevertheless, many questions were raised: did geometric patterns indeed copy Nature? Did they convey a special meaning, or were they only decorative (Gombrich 1979)?



Figure 19.1. Detail of an Attic amphora (mourners on the neck with vertical chevrons and prothesis scene on the shoulder), Late Geometric IIa, 730–720 BC. Archaeological Museum of Madrid (Inv. 1999/99/26, diameter 19.6 cm © Marie-Lan Nguyen/Wikimedia Commons).

Among the scholars struggling with these issues was the architect Gottfried Semper, who saw technical knowledge as the root of all artistic forms (Semper 2007). From his point of view, geometric designs could be copies of textile designs. In a quite different approach, Franz Boas explained the designs placed on the perimeter of the objects as “borders” (Boas 2003, 85; see also Coquet 1998, 165–166). On the other hand, Alois Riegl viewed the stylization of naturally occurring patterns as the central inspiration for the origin of geometric art, tracing geometric motifs to, for example, bark or snake’s skin (Riegl 1893/2002; see also Golsenne 2010). Less deterministic than Semper, Riegl integrated the two opposite points of view of *mimésis* and ornamentation. Most scholars today would admit that searching for a simple parallel between *signifiant* and *signifié* is naive and restrictive.

Rather than dealing with the meaning or derivation of motifs, archaeologists deal with typologies of shapes, styles of motifs, and chronology. Beyond the classificatory approaches some archaeologists have also focused on style as an expression of identity (David *et al.* 1988; Braun 1991). Others have stressed the importance of integrating

the context of use of ancient potteries for understanding both geometric and naturalistic painted styles (Nieuwenhuyse 2007). However, except for specific cases such as the burnt village of Sabi Abyad (Nieuwenhuyse 2010) and perhaps the burnt house of Arpachiyah (Campbell 2000), these contexts are not numerous.



Figure 19.2. Jar of the Samarra period, Tell es-Sawwan III (height: 20 cm) (after Al'Adami 1968, pl. 18-4b).

This paper asserts that the divorce between history of art and archaeology is an impasse and that geometric patterns appear as “a third way between figurative art and abstraction” (Golsenne 2010, 259), opening up new interpretations. Without additional theoretical arguments, a purely descriptive perspective linking geometric patterns painted on pottery with technical knowledge from textile production cannot be convincing. Following Saussure’s ideas, the link between *signifiant* and *signifié* is often arbitrary, but systematic correspondences between the two crafts have not been made explicit, and a critical method for identifying and documenting prehistoric textile patterns remains to be developed. Here I wish to explore whether crossovers between the two crafts existed within the Late Neolithic and on which basis we may identify them.

The first textile techniques

Early textiles built on a tradition of working with plant fibres to make

ropes and nets (and also basketry that extends back into the Palaeolithic (Nadel *et al.* 1994; Soffer *et al.* 1996; 2000; Hardy 2008). There is no evidence to show that basketry is at the origins of weaving as generally assumed. We would prefer to see both crafts as distinct, but related, ways to make containers of fibrous materials (Balfet and Desrosiers 1987; Desrosiers 2010). For the ancient Near East, the interconnectivity of weaving and basketry is recognized at least since the PPNA (Stordeur 1989 and pers. comm.). Both technical processes were organized as systems, and the various systems to some extent overlapped (Breniquet 2008, 30).

The first archaeological textiles presently known come from the Nahal Hemar cave in the Judean desert (Schick 1988). They were all made with primary techniques and elements (Seiler-Balidinger 1994, 31) such as a single continuous element known as sprang (Schick 1988, 34–35), looping or cross-knit looping (also known as “Coptic knitting”), produced by hand or with a single awl. With two or more sets of elements, we can add twining (Alfaro, 2012) or weaving (tablet-weaving) (Fig. 19.3) (Stordeur 1993, 256; Özdoğan 1995, 96). As suggested by rectangular bone tablets with a hole at the corners, tablet weaving may be attested at sites as early as Aceramic Ganj Dareh or Çayönü. Except in the case of tablet-weaving, the textile patterns obtained are a far cry from the intricate decorative designs sometimes observed on pots.

True weaving on a loom can be deduced from imprints on clay or bitumen from Jarmo (Adovasio 1975), textiles from Çatalhöyük (Helbæk 1963; Burnham 1965; Ryder 1965), as well as from the two post-holes (possibly for an upright loom) within the El Kowm house (Stordeur 2000, 50, fig. 14; Breniquet 2008, 142), which all date around 7000 BC. However, no structural or coloured designs are known and all are tabby (over-under weave) (Barber 1991). Of course additional decorative elements could be added to the fabric. For instance, the decorative band of the “sheet” from the Cave of the Warrior shows a dark colour made by applying a dark adhesive (resin or bitumen) onto individual threads (Schick 2000). Another example is the imprint in clay of a possible embroidery from Jerf el’Ahmar that suggests the use of a coloured thread (Stordeur in prep.). Finally, a single strand of red yarn has been reported from Çatalhöyük (Helbæk 1963, 43; Burnham 1965, 173). As colour is often impossible to detect without microscopic analysis, we cannot confirm the existence of coloured textiles during the Late Neolithic.

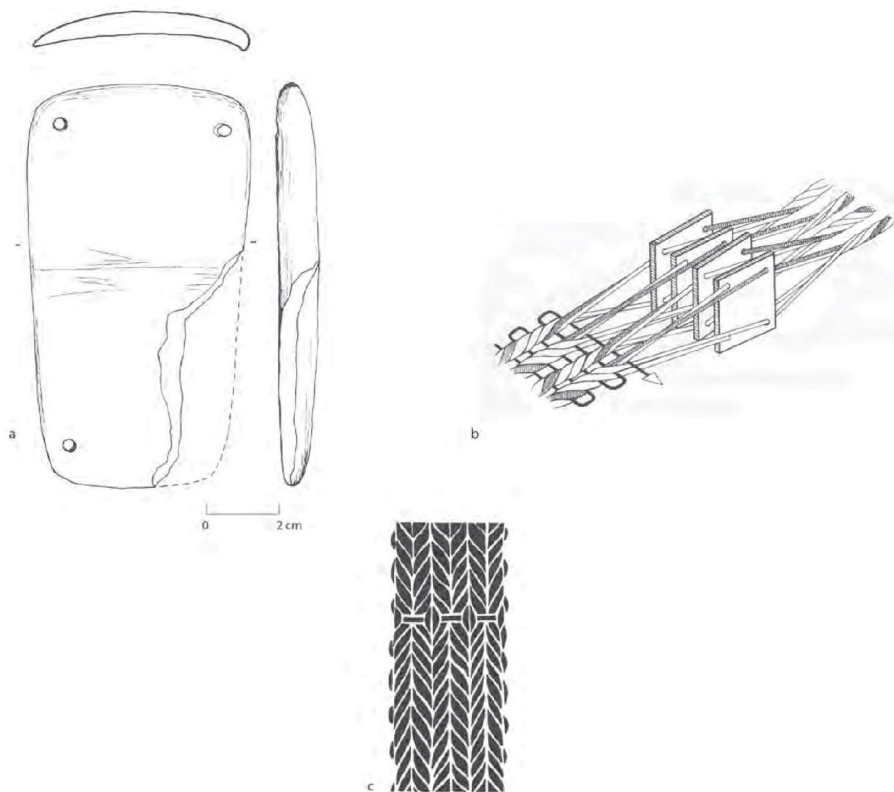


Figure 19.3. Upper left, bone tablet from Ganj Dareh (after Stordeur 1993, fig. 12–5). Upper right, principle of tablet-weaving (after Collingwood 1996, 21). Bottom left, detail of the inversion of threads in a tablet-weaving fabric (after Seiler-Baldinger 1994, fig. 139 b, 75).

Wool was much easier to die than vegetal fibres in pre-industrial contexts (Cardon 2003, 13), yet coloured wool remained rare until at least the third millennium BC. The start of a regular production of coloured wool was probably linked with the emergence of wool-bearing sheep. While all the coloured textiles recorded so far for the Near East are made of wool (Breniquet 2008, 131) they remain tantalizingly scarce. The earliest examples come from the Chalcolithic period, and include the wool textiles from the Nahal Mishmar cave (Bar-Adon 1980, 174–175) however, a reassessment of the stratigraphic location of these samples suggested they might be Roman (J. Levy pers. comm.). For the earliest historical periods, references on the archaic tablets of Uruk are pertinent (Englund 1998, 98). To identify the use of wool, we must refer to indirect evidence of manufacturing tools such as spindle-whorls (Rooijakkers 2012), which are ubiquitous in the Neolithic, or to theoretical models of breeding practices. The selection of specific breeds of sheep has been observed at Halaf sites in Syria (Breniquet 2008, 93), but it is impossible to link

this practice with the need for extracting special types of wool as raw materials for weaving.

Textile versus ceramic: which connection?

Linking ceramic motifs with textile patterns is a challenge. The Neolithic period in the Near East was a melting-pot of inventions, such as basketry, weaving, and pottery. We may assume that some techniques influenced others but it is impossible to say if these effects were directly related to textile structures or their designs. In the absence of substantial archaeological samples of Neolithic textiles, we might conclude that highly complex geometric designs on ceramics are not the best example for demonstrating crossovers between the two crafts. For example, the famous polychrome plate from Arpachiyah (Fig. 19.4) offers close similarities with woven or embroidered textiles (with the white yarn running on the top) and with basketry. However, the use of the floral design in the centre clearly shows that the creative inspiration of the craftsperson and the choice of cultural references could be very arbitrary.

Finally, if we search for the prehistoric origins of geometric designs (Lorblanchet 1999; Keller 2001), the wall paintings from the collective building at Djadé (Coqueugniot 2014) suggest that ritualized practices may have offered a model for the emergence of geometrical thought. Even if the precise supernatural meanings of this building or the activities conducted in it may remain impossible for us to understand, we might consider that ideological or religious thought lies behind the use of early geometric art, and stimulated the innovations in craft production.

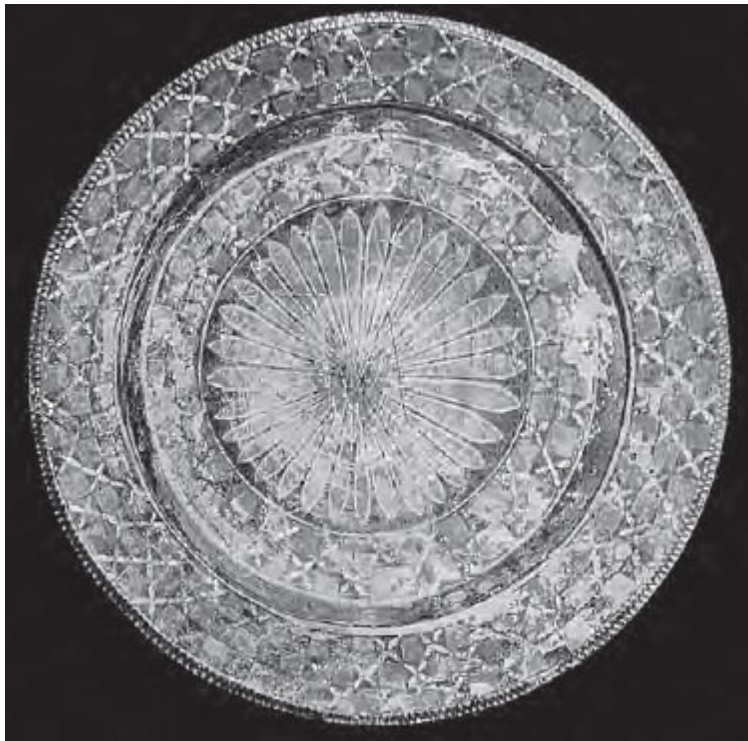


Figure 19.4. Polychrome plate from Tell Arpachiyah (diameter: c. 35 cm), level TT6, Iraq Museum (inv. IM 14726), Baghdad.

The first geometric designs on ceramic vessels (Ubaid 0, DFBW, Pre-Halaf Standard Ware) are usually placed on the upper half of the pots on the shoulder close to the mouth. Figurative scenes appeared later, in special contexts, and probably conveyed socially significant events such as dances, wars, or the construction of special buildings (Mithen 1996; 1997; 1998; Garfinkel 1998; Demoule 2007). Of course, we have to consider that the emergence of painted pottery differed radically in different regional settings; in the Hassuna-Samarra tradition it seems to have emerged independently, while in Halafian cultural contexts external influences can be identified (Nieuwenhyuse 2009). Interestingly, similar processes can be identified outside the ancient Near East, especially in geometric Greek art. Here, among very complex intricate designs, *prothesis* and *ekphora* scenes appear within a frame (Fig. 19.1) (Snodgrass 1987, 14). Geometric and figurative designs never appear alone. For the Late Neolithic of the Near East, it seems that more complex geometric designs (Ubaid 1–2, Samarra, Middle/Late Halaf) did not appear first; they came into being only after the earliest stage of painting mentioned above.

It is common in this field of research to highlight the difficulties of identifying the textile techniques utilized and their associations with

painted designs. Does this mean that the question will remain indefinitely unresolved? No. In our view, while admittedly direct parallels between geometric painted art and textiles remain unconvincing, in specific instances very clear direct comparisons *can* be made. Those geometric designs which can be directly compared to textile designs fall into three distinct categories.

Narrow bands, including zigzags, saw-edges, chessboards, and so on, (Fig. 19.5) (see also the catalogue given by Braidwood *et al.* 1944);

Finishing elements, such as fringes, pompoms (Fig. 19.6, top), squares and festoons placed at the top of the bowls, often on the interior rim where they have been called “dancing ladies” (Fig. 19.6, 2nd row from the top), or structural elements like inverted threads (Fig. 19.6, 3rd row and bottom);

Basket-like monochrome designs covering all the internal surface of the vase, evoking a sieve or a net (Fig. 19.7).

All three categories can be associated with specific textile techniques. For the first category, these narrow bands can be related to tablet-weaving bands (Collingwood 1996). This technique uses flat tablets, usually square, made of wood, leather or bone. Each tablet has a hole at each corner carrying a warp thread. The craftsperson holds a series of tablets which are turned forward or backward. Turning the tablet opens the shed allowing the weft to be passed through. By using different sets of tablets and threads in different colours, many geometric structures are possible. Every hand weaver’s manual explains this technique and it is easy to recognize the geometric borders characterizing much Late Neolithic painted pottery in the most common woven designs. We may even identify details such as the inversion of the threads during the weaving process. Any experimental archaeologist specializing in textiles can replicate all these designs with little effort.

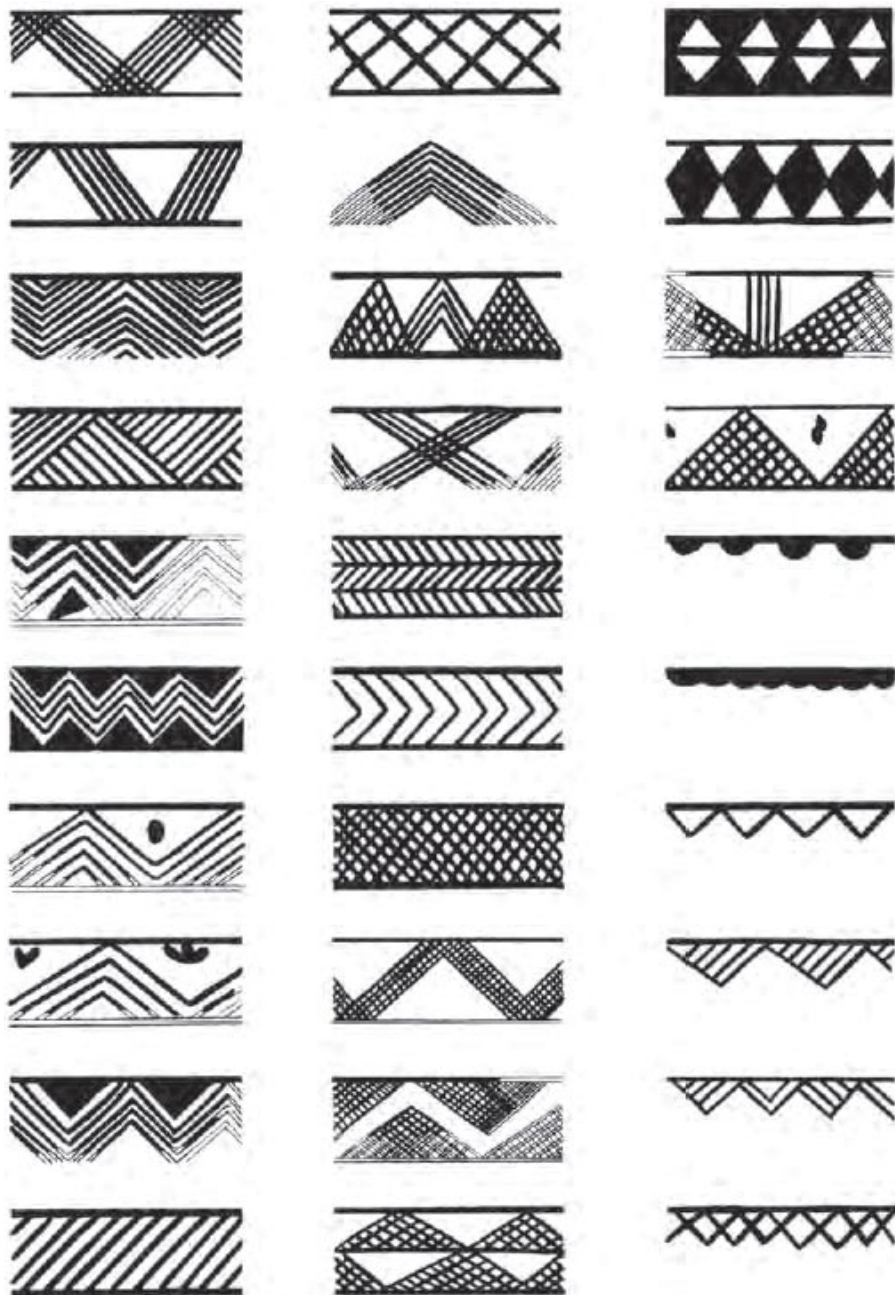


Figure 19.5. A selection among many others of geometric borders on Hassuna-Samarra pots (after Braidwood et al. 1952, fig. 22).

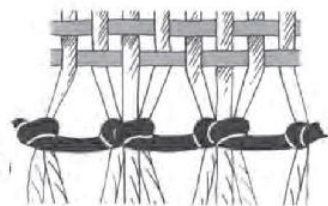
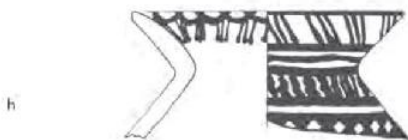
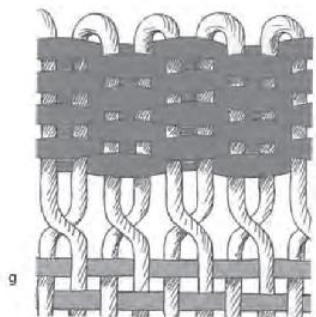
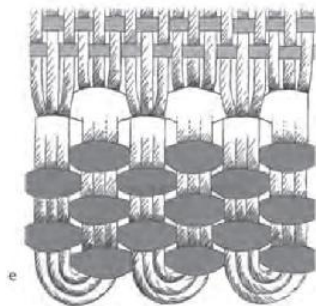
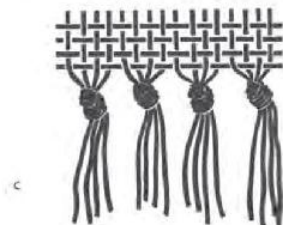
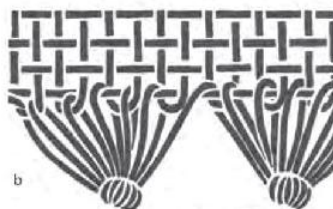
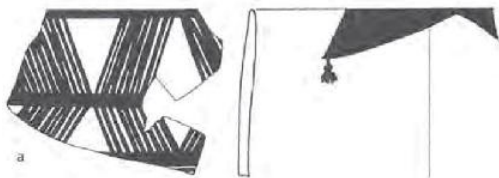


Figure 19.6. Pompoms, hems, structural elements. a: Obeid 1 pot, Tell el'Oueili © DAFIq, Mission de Larsa-Oueili. b, c: Fringes with knots (after Seiler-Baldinger 1994, 131, figs 248 and 250). d: Late Halaf pot from Khirbet Derak, (unknown diameter) © DAFIq, Mission d'EskiMosul. e: starting border (after Médard 2010, 237). f: Obeid 1 jar from Tell el'Oueili. © DAFIq, Mission de Larsa-Oueili. g: starting border (after Médard 2010, 227). h: jar of the Samarra period with the so-called

“dancing ladies”, Tell es-Sawwan (mouth diameter c. 10 cm). © DAFiq, Mission de Tell es-Sawwan.
i: ending border with knots (after Médard 2010, 213).

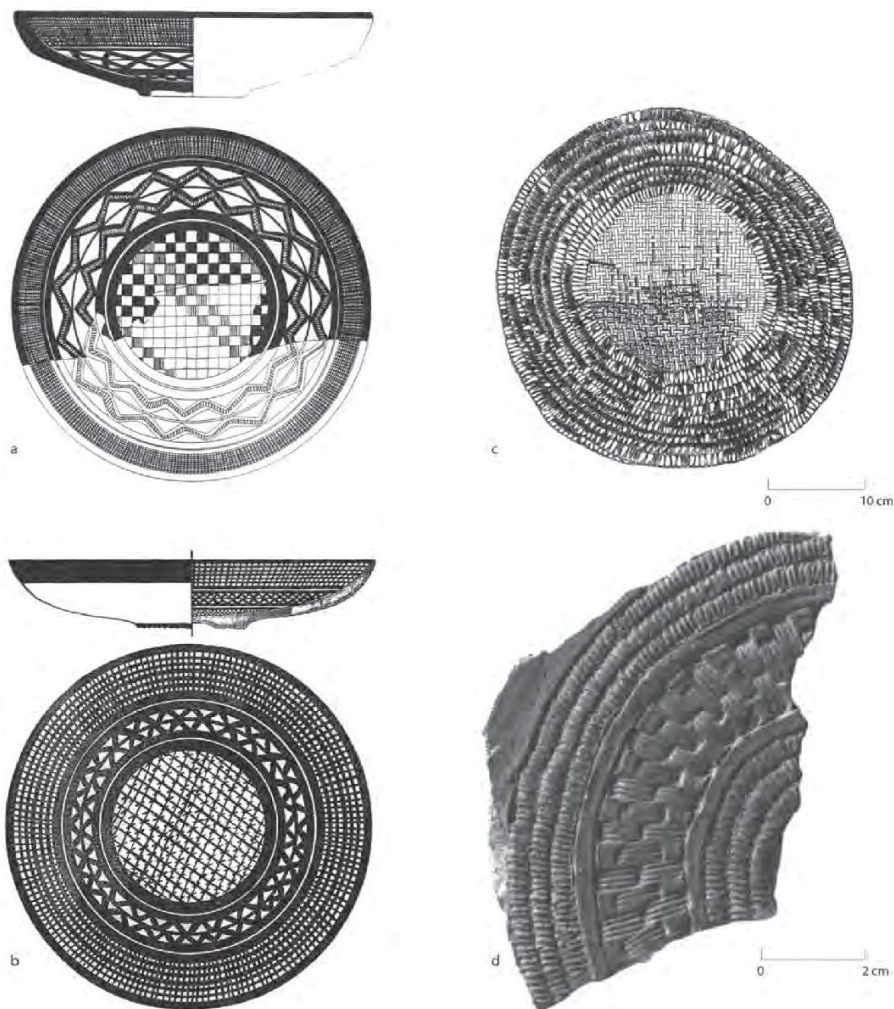


Figure 19.7. Basketry and pottery. a: Obeid 1 plate from Tell el'Oueili, diameter: 19 cm © DAFiq, Mission de Larsa-Oueili. b: Obeid 1 plate from Eridu (scale unknown). (after Safar et al. 1981, 203, fig. 4.). c: basket or sieve from Nahal Mishmar (after Bar-Adon 1980, 191, ill. 62). d: sherd shaped to imitate basketry, Domuztepe (after Witcher Kansa et al. 2009, fig. 4, 909).

The placement of these bands, often close to the pot's mouth, may indicate that the potters had a particular intention, for example, as with textiles, to reinforce the fabric at its borders. By decorating the borders, these painted designs may have acted to “protect” the pot and its contents. Borders, being both decorative and structural, may simultaneously convey different meanings (Thissen 1996).

Finishing elements are quite surprising because they suggest a high degree of manufacturing skill. Although this high level of skill is well-known from Neolithic Europe (Médard 2010, 151–241), it is less well

represented in the Near East, despite the two exceptional tassels reported from the Nahal Hemar material (Schick 1988, pl. xx-4). The festoon-like motives on the interiors of some pots recall the the inverted threads remaining after weaving the band (*i.e.* a hem) and fringed endings (Barber 1991, 135, fig. 4.12).

Our third category consisted of various painted skeuomorphs of basketry. The potters selected a specific structural element, for instance the cross made by the two passive elements used to start the bottom of a basket, and painted this on the bottom of the pot (*e.g.* Tobler 1950, pl. cxxxv-269). Some of the clearest examples of correlations between pottery and basketry come from Domuztepe (Witcher Kansa *et al.* 2009, fig. 4, 909) and Tepe Gawra (Tobler 1950 pl. cxxxi nb 218 and 220). These examples strongly suggest that in these cases pottery containers were imitations of coiled, possibly coloured, baskets. Some Ubaid plates carrying monochrome designs clearly evoke basketry containers or sieves. For instance, we find a coiled perimeter with open work and a plait or chess-patterned center at Oueili, or crossed passive elements tied together at Eridu (Balfet 1952; Wendrich 1991; Adovasio 2010) ([Fig. 19.7](#)). These intriguing examples compare well to the discoveries in the Nahal Hemar cave, the uniqueness of which may be mainly due to preservation. On the whole the basketry types suggested by these painted motifs remain limited; we mainly find coiled baskets or mats (Stordeur 1989). However, the observation that with both basketry and pottery production, similar stylistic elements were transposed onto a specific, and similar, location on the container body suggests that, in a domestic context and for some specific pots, the producers of textiles baskets and pottery containers were the same (Breniquet 2008, 334; Nieuwenhuys 2010).

Perspectives

If we wish to search for the meaning of geometric designs on Late Neolithic pots, it is clear that textiles may provide a valuable perspective for understanding the repertoire. To understand prehistoric painted pottery, it may not be very useful to invoke cognitive universals arising from the structure of the *Sapiens* mind, or to search for a specific antique “taste”. The various Near Eastern ceramic traditions – the Hassuna, Samarra, and Halaf “culture” – are clearly connected with identifiable regional “styles” and cultural identities, but the role of geometric designs in creating regional boundaries remains to be further explored.

Late Neolithic decorative “style” is linked with spatial dispersion of

specific ceramic traditions, with the use of specific clays for making specific wares, or with the choice of selected motifs coming from specific cultural contexts. For instance, the emergence of the Proto-Halaf style can be connected with external “influences” from the Samarra culture (Nieuwenhuyse 2009).

Ceramic ornamentation increased during the Pottery Neolithic. During some sub-periods (Ubaid 1 and 2, Late Halaf for instance), it seems that potters sought spectacular visual effects, probably linked with the intended use of some of the pots for socially-charged events such as feasts, exchange, or redistribution (Robert 2010, also this vol.). It seems clear that aesthetic considerations became important during the Late Neolithic, and that aesthetic frameworks gave the pots an added value. Due to the high standards of quality of some of the ceramic wares, some scholars have suggested the presence of “specialists” and “workshops”. From that point of view, the increasing complexity of the geometric designs on the Late Neolithic painted pots could be seen as a competitive game between the producers, giving an extra value to the pots they created.

For modern scholars, the concept of aesthetics might seem difficult to apply, as we are very distant from the ideas of the Neolithic potters (Grosse 1894/2009, 74). However there is no objective reason to deny Neolithic peoples an aesthetic dimension. Moreover, the ornamental logic was guided by strong organizational structures. Neolithic crafts persons of Mesopotamia seem to have rejected the possibility of free compositions of the design motifs. The structure of the designs always corresponds to the main structural divisions of the vase (neck, shoulders, point of maximum diameter, base), which in turn depended on the “*chaîne opératoire*” of its manufacture (Thissen 1996; Nieuwenhuyse 2007, 175–221). Thus, the patterning of the geometric motifs reflected the overall design of the pot, and can be shown to have followed a “grammar” in itself. As discussed above, although there is a lack of detailed studies of the processes of painting the pots, the layout of the motives in some instances corresponded closely to the process of textile decoration. The producers of both crafts were probably the same and pots and textiles may have been thought of as belonging to the same conceptual category.

Due to lacunae in our knowledge, it is tempting to draw on ethnographical or historical analogies. Many scholars have suggested that prehistoric pots – and even the clay fabrics of which they were construed – were conceived of as human beings both by the potters and their consumers (Berggren 1993; Forest 1993; Lissarrague 1995; Mauss 1967, 46; Desrosiers 2000). Our own vocabulary clearly shows

that even today pots are still being thought of as anthropomorphic entities, having “shoulders”, “necks” and “feet”. Moreover, the hollow form of a pottery container is frequently considered as universally “feminine” by cultural anthropologists. Even if they are inanimate, these objects are in a sense “alive”. For that reason, in some traditional, non industrial, societies it is impossible to cut or break pots without compromising the world’s cosmic order (Desrosiers 2000). Anthropomorphic pots such as those from Hassuna (Lloyd and Safar 1945, pl. xvii 2–3) or Hacilar I (Mellaart 1960, pl. xv) might suggest that we can extrapolate this perspective to Near Eastern archaeology (Fig. 19.8).

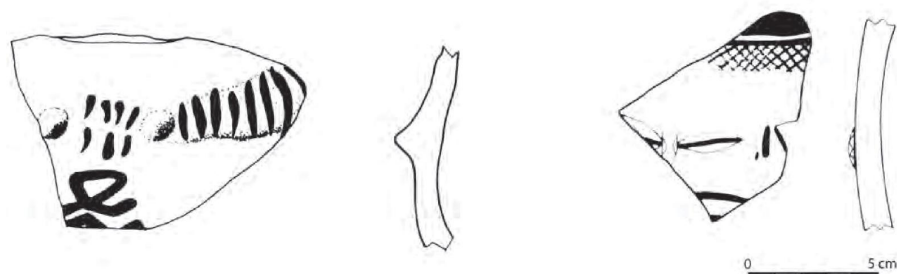


Figure 19.8. Anthropomorphic pots of Samarra period from Tell es-Sawwan (after Breniquet 1992, fig. M 6, 7). © DAFiq, Mission de Tell es-Sawwan.

Once again, evidence suggests that geometric bands could have had both a structural, protective *and* an ornamental character, for pots and textiles (Stronach 1993; Paul 2000). For this reason, the borders could have constituted both the frame (the “grammar”) and the decoration in them (Coquet 1998, 166; Boas 2003, 88; Le Pape 2009, 137). Thus, at a structural level there may have been a systematic organization common to both pots and textiles.

Another valuable direction to explore the linkages between these two crafts would be to investigate the beginnings of geometric ornamentation from a broader perspective, moving beyond established disciplinary boundaries between pottery specialists, textile specialists, archaeologists and historians. Without a doubt, the thought behind it was an abstract one. Usage of this term should therefore not be reserved only for the Classical world. The importance of abstract art as a cultural phenomenon should not be minimized. At a cognitive level, abstract motifs may be part of an iconographic system that does not distinguish between the figurative and the non-figurative and does not require a clear correspondence in the perceptible world (Lorblanchet 1999, 212; Golsenne 2010, 259). At an ideological level, motifs may also reflect historical contexts that stimulated the development of a

distinct artistic language, namely a non-iconic one, to express an alternative world order (Nieuwenhuyse 2007, 238; Verdon 2010, 255).

Examples include the cubist movement in Europe, or the protogeometric art succeeding the Mycenaean period.

Late Neolithic geometric expression was probably not without meaning. The Neolithic period was very long, and it saw the emergence of a society very different from before (Forest 2006). This will have been grounded on a new cognitive apprehension of the world (Watkins 2010) that affected the organization of the family, rules of agricultural cooperation, the negotiation of social hierarchies, ritual practices, kinship structures, and inevitably tensions with neighbours. The Late Neolithic period followed the previous establishment of a domestic way of life in the Fertile Crescent, and the dissolution of the large PPNB settlements. The intricate geometric designs on pots, whether copied from textiles or not, were immediate metaphors for the complexities of the new social relationships, what is often called the “social fabric”. However, this does not mean to say that grasping these metaphors, the “meanings” of the motifs, lies within easy reach for modern scholarship. To the Late Neolithic people involved, this particular artistic choice will have enabled different readings, most of them probably quite distant from what we can understand.

From my point of view, the key challenge lies in understanding the emergence of a new way of thinking in the Late Neolithic period, based on new, geometrically oriented symbols to express new social identities, not so much the search for close and immediate similarities between crafts, or the lack thereof. The true meaning of these geometrical styles may remain far from our understanding, but we may come a long way if we make the attempt to explain the historical circumstances in which they first emerged.

Acknowledgements

The author wishes to express her warmest thanks to the editors for their invitation and their helpful assistance.

Bibliography

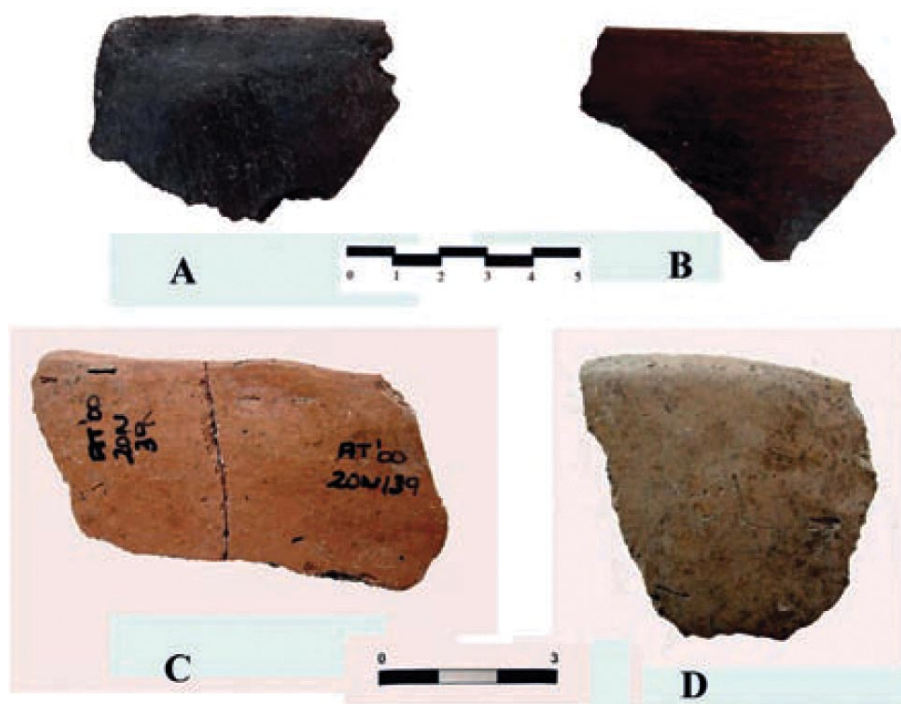
- Adovasio, J. (1975) The textiles and basket impressions from Jarmo. *Paléorient* 3, 223–230.
- Adovasio, J. (2010) *Basketry Technology. A Guide to Identification and Analysis* (updated edition), Walnut Creek, Left Coast Press.
- Al’Adami, K. (1968) Excavations at Tell es-Sawwan. *Sumer* 24, 57–94.
- Alfaro, C. (1989) Le tissage, la corderie et la vannerie dans les motifs décoratifs de la céramique du premier néolithique dans la région de Valence (Espagne). In *Tissage, corderie, vannerie. Approches archéologiques, ethnographiques, technologiques*, Actes des IXe

- Rencontres internationales d'archéologie et d'histoire tenues à Antibes, 103–112, Juan-les-Pins, Éditions APDCA.
- Alfaro, C. (2012) Textiles from the Pre-Pottery Neolithic site of Tell Halula (Euphrates Valley, Syria). *Paléorient* 38 1/2, 41–54.
- Balfet, H. (1952) La vannerie. Essai de classification. *L'Anthropologie* 2/3, 259–273.
- Balfet, H. and Desrosiers, S. (1987) Où en sont les classifications textiles? *Techniques et culture* 10, 207–211.
- Bar-Adon, P. (1980) *The Cave of the Treasure. The Finds from the Caves in Nahal Mishmar*, Jerusalem, Israel Exploration Society, Judean Desert Studies.
- Barber, E. J. (1991) *Prehistoric Textiles. The Development of Cloth in the Neolithic and Bronze Ages, with Special Reference to the Aegean*, Princeton, Princeton University Press.
- Berggren, K. (1993) Why embroider pottery? *Journal of Prehistoric Religion* 7, 8–25.
- Bier, C. (1995) Textile arts in ancient western Asia. In J. Sasson (ed.) *Civilizations of the Ancient Near East, 1567–1588*, New York, Charles Scribner's Son.
- Boas, F. (2003) *L'art primitif*, Paris, Adam Biro.
- Braidwood, R., Braidwood, L. S., Smith, J. G., and Leslie, Ch. (1952) A southern variant of the Hassunan assemblage, excavated in 1948. *Journal of Near Eastern Studies* 11/1, 1–75.
- Braidwood, R., Braidwood, L. S., Tulane, E., and Perkins, A. L. (1944) New Chalcolithic material of Samarran type and its implication. *Journal of Near Eastern Studies* 3/1, 47–72.
- Braun, D. P. (1991) Why decorate a pot? Midwestern household pottery, 200 BC–AD 600. *Journal of Anthropological Archaeology* 10, 360–397.
- Breniquet, C. (1992) Rapport sur deux campagnes de fouilles à Tell es-Sawwan. *Mesopotamia* XXVII, 5–30.
- Breniquet, C. (2008) *Essai sur le tissage en Mésopotamie, des premières communautés sédentaires au milieu du 3e millénaire avant J.-C.*, Paris, De Boccar.
- Breniquet, C. (2012) Objets et images. In S. Archambaut de Beaune and H.-P. Francfort (eds) *L'archéologie en mouvement: hommes, objets, espaces et temporalités*, 92–98, Paris, CNRS-Editions.
- Burnham, H. R. (1965) Çatal Hüyük. The textiles and twined fabrics. *Anatolian Studies* 15, 169–174.
- Campbell, S. (2000) The burnt house at Arpachiyah: a reexamination. *Bulletin of the American School of Oriental Research* 31, 1–40.
- Cardon, D. (2003) *Le monde des teintures naturelles*, Paris, Belin.
- Collingwood, P. (1996) *The Techniques of Tablet Weaving*, (reprint), McMinnville, Robin and Russ Handweavers.
- Coquet, M. (1998) Bordures africaines, images du corps et morcellement de l'étendue. In F. Cousin, S. Desrosiers, D. Geimaert and N. Pellegrin (eds) *Lisières and Bordures*, 165–181, Bonnes, Les Gorgones.
- Coqueugniot, E. (2014) Dja'dé (Syrie) et les représentations symboliques au IXe millénaire cal. BC. In C. Manen, T. Perrin et J. Guilaïne (eds) *La transition néolithique en Méditerranée, Actes du colloque de Toulouse, 14–15 avril 2011*, 91–108, Arles, Archives d'écologie préhistorique, éditions Errance-Actes Sud.
- David, N., Sterner, J. and Gavua, K. (1988) Why pots are decorated. *Current Anthropology* 29/3, 365–389.
- Demoule, J.-P. (2007) *Naissance de la figure*, Paris, Hazan.
- Desrosiers, S. (2000) Le tissu comme un être vivant? A propos du tissage à quatre lisières dans les Andes. In F. Cousin, S. Desrosiers, D. Geimaert and N. Pellegrin (eds) *Lisières and Bordures*, 117–125, Bonnes, Les Gorgones.
- Desrosiers, S. (2010) Textile terminologies and classifications: some methodological and chronological aspects. In C. Michel and M.-L. Nosch (eds) *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First millennia BC*, 22–51, Ancient Textile Series 8, Oxford, Oxbow Books.
- Englund, R. K. (1998) The texts from the Late Uruk Period. In J. Bauer, R. K. Englund and M. Krebern timer (eds) *Mesopotamien Späturuk-Zeit und Frühdynastische Zeit*, 15–233, Göttingen, Universitätsverlag Freiburg Schweiz and Vandenhoeck and Ruprecht.
- Feugère, M. (2000) Céramique excisée et décor textile dans l'âge du Fer languedocien. In D. Cardon and M. Feugère (eds) *Archéologie des textiles, des origines au Vème siècle*, 83–87,

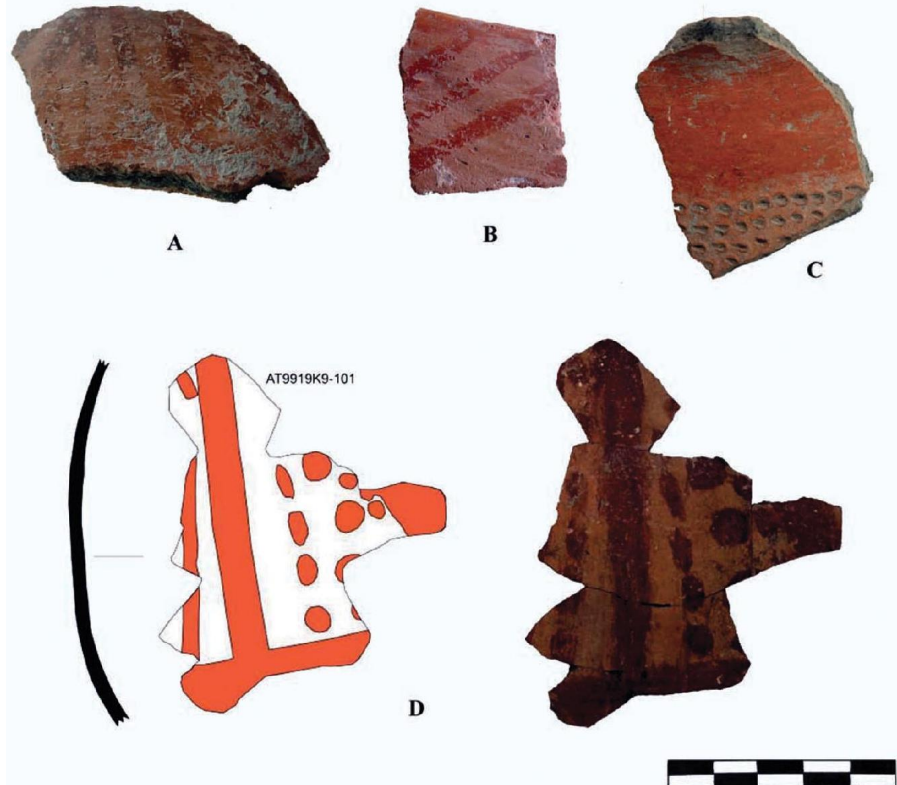
- Monographies Instrumentum 14, Montagnac, Editions Monique Mergoil.
- Forest, J.-D. (1993) Çatal Hüyük et son décor: pour le déchiffrement d'un code symbolique. *Anatolia Antiqua* 2, 1–42.
- Forest, J.-D. (2006) Le processus de néolithisation proche-oriental: pour une archéologie sans frontières. *Syria* 83, 125–138.
- Frame, M. (1986) The Visual images of fabric structures in ancient Peruvian art. In A. Pollard Rowe (ed.) *The Junius B. Bird Conference on Andean Textiles, April 7th and 8th 1984*, 47–80, Washington DC, Textile Museum.
- Garfinkel, Y. (1998) Dancing and the beginning of art scenes in the early village communities of the Near East and southeast Europe. *Cambridge Archaeological Journal* 8/2, 207–237.
- Gillis, C. and Nosch, M.-L. (eds) (2007) *Ancient Textiles. Production, Craft and Society*, Ancient Textile Series 1, Oxford, Oxbow Books.
- Golsenne, T. (2010) L'Ornement est-il animiste? In T. Dufrêne and A.-C. Taylor (eds) *Cannibalismes disciplinaires. Quand l'histoire de l'art et l'anthropologie se rencontrent*, 255–268, Paris, co-edition INHA/Quai Branly Museum.
- Gombrich, E. (1979) *The Sense of Order. A Study in the Psychology of Decorative Art*, Oxford, Phaidon.
- Grömer, K. (2005) Tablet-woven ribbons from the prehistoric salt-mines at Hallstatt, Austria. Results of some experiments. In P. Bichler, K. Grömer, R. Hofmann-de Keijzer, A. Kern and H. Reschreiter (eds) *Hallstatt Textiles. Technical Analysis, Scientific Investigations and Experiment on Iron Age Textiles*, 81–90, British Archaeological report S1351, Oxford, Archaeopress.
- Grosse, E. (1894/2009) *Les débuts de l'art* (reimpression), Paris, Editions Esthétiques du Divers.
- Halm-Tisserand, M. (2010) Styles géométriques et production céramique du Géométrie grec. *Ktèma* 35, 123–162.
- Hardy, K. (2008) Prehistoric string theory. How twisted fibers helped to shape the world. *Antiquity* 82, 271–280.
- Helbæk, H. (1963) Textiles from Çatal Hüyük. *Archaeology* 16, 39–46.
- Keller, O. (2001) Éléments pour une préhistoire de la géométrie. *L'Anthropologie* 105, 327–349.
- Le Pape, Y. (2009) *L'image subtile. Jeux visuels et manipulations de l'image dans l'art de l'Antiquité*, Paris, L'Harmattan.
- Lissarrague, F. (1995) Women, boxes, containers: some signs and metaphors. In E. Reeder (ed.) *Pandora, Women in Classical Greece*, 91–101, Baltimore/Princeton: Princeton University Press.
- Lloyd, S. and Safar, F. (1945) Tell Hassuna – excavations by the Iraq Government General of Antiquities in 1943 and 1944. *Journal of Near Eastern Studies* 4, 255–289.
- Lorblanchet, M. (1999) *La naissance de l'art. Genèse de l'art préhistorique dans le monde*, Paris, Errance.
- Mauss, M. (1967) *Manuel d'ethnographie* (re-edition), Paris, Payot.
- Médard, F. (2010) *L'art du tissage au Néolithique, IVe–IIIe millénaires avant J.-C. en Suisse*, Monographies du CRA 30, Paris, CNRS-Éditions.
- Mellaart, J. (1960) Excavations at Hacilar. Third preliminary report, 1958. *Anatolian Studies* 10, 83–104.
- Mellaart, J. (1971) *Çatal Hüyük. Une des premières cités du monde*, Taillandier, Jardin des Arts.
- Michel, C. and Nosch, M.-L. (eds) (2010) *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennia BC*, Ancient Textiles Series 8, Oxford, Oxbow Books.
- Mithen, S. (1996) *The Prehistory of the Mind. A Search for the Origins of Art, Religion and Science*, London, Phoenix.
- Mithen, S. (1997) Cognitive archaeology, evolutionary psychology and cultural transmission, with particular reference to religious ideas. In C. M. Barton and G. A. Clark (eds) *Rediscovering Darwin: evolutionary theory and archaeological explanation*, 67–74, Archaeological Papers of the American Anthropological Association 7, Arlington, American Anthropological Society.
- Mithen, S. (1998) The origins of anthropomorphic thinking. *Journal of the Royal*

- Anthropological Institute 4/1, 129–132.
- Nadel, D., Danin, A., Werker, E., Schick, T., Kislev, M. E. and Stewart, K. (1994) 19 000-year-old twisted fibres from Ohalo II. *Current Anthropology* 35/4, 451–458.
- Nieuwenhuys, O. P. (2007) *Plain and Painted Pottery. The Rise of Late Neolithic Ceramic Styles on the Syrian and Northern Mesopotamian Plains*. Turnhout, Brepols.
- Nieuwenhuys, O. P. (2009) The painted pottery revolution: emulation, ceramic innovation and the Early Halaf in northern Syria. In L. Astruc, A. Gaulon and L. Salanova (eds) *Méthodes d'approche des premières productions céramiques: étude de cas dans les Balkans et au Levant*, 81–91, Rahden, Marie Leidorf.
- Nieuwenhuys, O. P. (2010) A household affair? Pottery production in the burnt village at Late Neolithic Tell Sabi Abyad. In D. Bolger and L. C. Maguire (eds) *Development of Pre-State Communities in the Ancient Near East*, 97–105, Oxford, Oxbow Books.
- Özdoğan, A. (1995) Life at Çayönü during the Pre-Pottery Neolithic Period (according to the artifactual assemblage). In Section of Prehistory, Faculty of Letters, Istanbul University (ed.) *Readings in Prehistory. Studies Presented to Halet Çambel*, 79–100, Istanbul, Graphis.
- Paul, A. (2000) Protective perimeters. The symbolism of borders on Paracas textiles. *Res* 38, 143–167.
- Riegl, A. (1893/2002) *Questions de style. Fondements d'une histoire de l'ornementation* (French translation), Paris, Hazan.
- Robert, B. (2010) *Développement et disparition de la production céramique halafienne: implications techniques et sociales à partir d'études de cas*, Unpublished PhD. thesis, Université Lumière Lyon 2/Université Michel de Montaigne – Bordeaux 3.
- Rooijakkers, C. T. (2012) Spinning animal fibres at Late Neolithic Sabi Abyad, Syria? *Paléorient* 38 1/2, 91–109.
- Ryder, M. (1965) Report of textiles from Çatal Hüyük. *Anatolian Studies* 15, 175–176.
- Safar, F., Ali Mustafa, M. and Lloyd, S. (1981) *Eridu*, Baghdad, State Organization of Antiquities and Heritage.
- Schick, T. (1988) Nahal Hemar Cave. Cordage, basketry and fabrics. *'Atiqot (English Series)* XVIII, 31–43.
- Schick, T. (2000) 6000 years old textiles from the Cave of the Warrior, Judean Desert. In D. Cardon and M. Feugère (eds) *Archéologie des textiles, des origines au Vème siècle*, 15–21, Monographies Instrumentum 14, Montagnac, Editions Monique Mergoil.
- Seiler-Baldinger, A.-M. (1994) *Textiles. A classification of techniques*. Bathurst, Crawford House Press.
- Semper, G. (2007) L'art textile. In G. Semper (ed.) *Du style et de l'architecture. Ecrits, 1834–1869*, 223–233 (French translation), Marseille, Parenthèses.
- Siebert, G. (2010) La réception de l'art géométrique grec dans l'historiographie (fin du XIXe-milieu du XXe siècle). *Ktèma* 35, 299–312.
- Snodgrass, A. M. (1987) La naissance du récit dans l'art grec. In C. Bérard, C. Bron and A. Pomari (eds) *Images et société en Grèce ancienne. L'iconographie comme méthode d'analyse*, 11–18, Cahiers d'Archéologie Romande 36, Lausanne, Institut d'Archéologie et d'Histoire Ancienne, Université de Lausanne.
- Soffer, O., Adovasio, J. M. and Hyland, D. C. (2000) The “Venus” figurines. Textiles, basketry, gender and status in the Upper Palaeolithic. *Current Anthropology* 41/4, 511–537.
- Soffer, O., Adovasio, J. M. and Klíma, B. (1996) Les tissus paléolithiques de Moravie. *L'archéologie* 25, 9–11.
- Stordeur, D. (1989) Vannerie et tissage au Proche-Orient néolithique: IXe–Ve millénaires. In *Tissage, corderie, vannerie. Approches archéologiques, ethnographiques, technologiques, Actes des IXe Rencontres internationales d'archéologie et d'histoire tenues à Antibes*, 19–39, Juan-les-Pins, Éditions APDCA.
- Stordeur, D. (1993) Outils et parures en os de Ganj Dareh (Iran, VIIe millénaire BC). *Cahiers de l'Euphrate* 7, 245–296.
- Stordeur, D. (ed.) (2000) *El Kowm 2. Une île dans le désert. La fin du Néolithique précéramique dans la steppe syrienne*, Paris, CNRS-Éditions.
- Stronach, D. (1993) Patterns of prestige in the Pazyryk Carpet: notes on the representational role of textiles in the first millennium BC. *Oriental Carpet and Textile Studies* 4, 19–34.
- Thissen, J. (1996) La céramique Obeid 0 de Telle el Oueili, campagnes 1983–1985. Analyse

- structurale du décor. In J.-L. Huot (ed.) *Oueili, travaux de 1987–1989*, 201–288, Paris, ERC.
- Tobler, A. J. (1950) *Excavations at Tepe Gawra. Volume II: Levels IX–XX*, Philadelphia, University of Pennsylvania Press.
- Van Gennep, A. and Jéquier, G. (1916) *Le tissage aux cartons et son utilisation décorative dans l’Égypte ancienne*, Neuchâtel, Delachaux and Niestlé.
- Verdon, O. (2010) Le géométrique, une simple parenthèse dans l’histoire de l’art? *Ktèma* 35, 253–272.
- Watkins, T. (2010) New light on Neolithic revolution. *Antiquity* 84, 621–634.
- Wendrich, W. (1991) *Who is Afraid of Basketry? A Guide to Recording Basketry and Cordage for Archaeologists and Ethnographers*, Leiden, Centre for Non-Western Studies, Leiden University.
- Witcher Kansa, S., Kennedy, A., Campbell, S. and Carter, E. (2009) Resource exploitation at Late Neolithic Domuztepe. *Current Anthropology* 50/6, 898–914.



Pl. 1 (Fig. 2.3). Akarçay Tepe. The colours of the burnished exterior surfaces of the pottery from Phase I (A, Black; B, Dark red; C, Light red; D, Light grey).



Pl. 2 (Fig. 2.4). Akarçay Tepe. The earliest decorated pottery, dated to mid-seventh millennium. A and B: Rim fragments of medium-sized open bowls with painted oblique lines in red colour. C: Fragment of a globular jar with a tall neck carrying a burnished red slip on the shoulder and impressed decoration on the body. D: Fragment of a Fine Ware large globular jar with a geometric pattern painted in dark red on a light slip.



Pl. 3 (Fig. 2.7). Tell Chagar Bazar. Painted Fine Ware vessels from the Proto-Halaf to the Late Halaf stages showing references to agricultural activities.



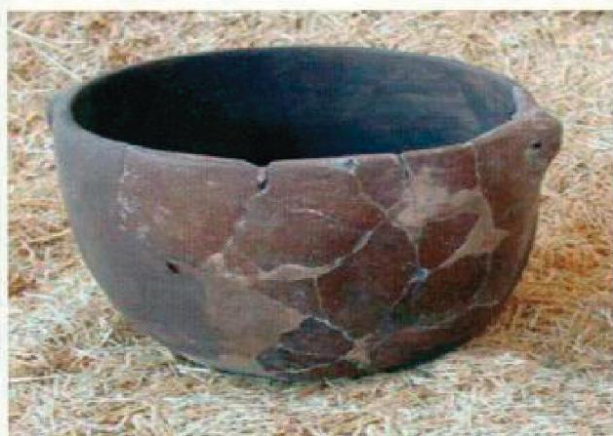
1



2



3



4

Pl. 4 (Fig. 3.2). Comparison of dark coloured chlorite stone vessels (1) and the earliest pottery (2–4). 1: Körtik Tepe (after Özkaya and Coşkun 2011, fig. 18). 2: Tell Seker al-Aheimar. 3: Tell Damishliya. 4: Akarçay Tepe (after Özbaharan and Molist 2007, vol. 2, 187, fig. 29).



1



2

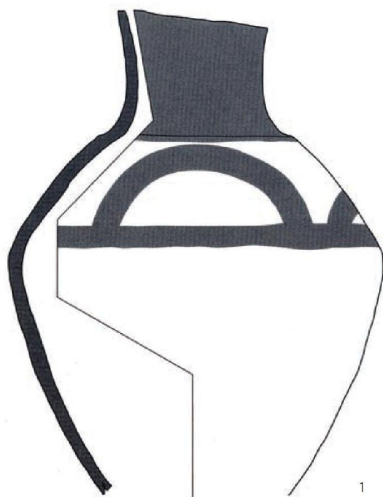


3



4

Pl. 5 (Fig. 3.5). Early painted pottery. 1: Tell Sabi Abyad (after Nieuwenhuyse et al. 2010, fig. 6). 2: Tell Seker al-Aheimar. Nos 3–4: densely mineral-tempered fabrics of two early painted pottery sherds from Tell Sabi Abyad.

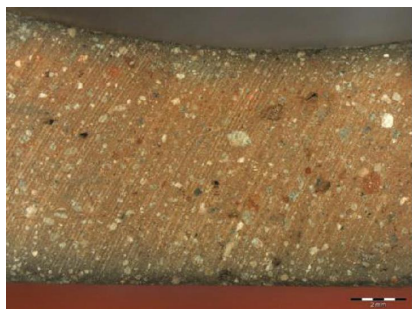


1

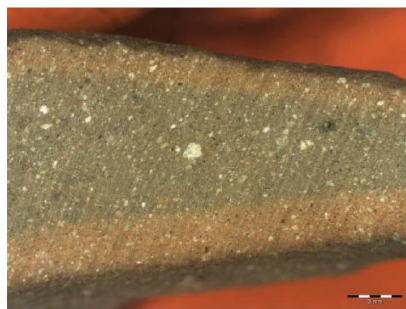


2

Pl. 6 (Fig. 3.6). Painted Dark-Faced Burnished Ware from Tell Sabi Abyad (1: after Nieuwenhuyse 2007, pl. 85, no. 12; 2: photo by M. Le Mière).

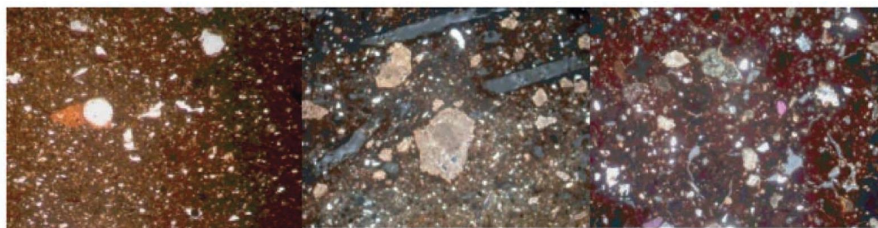


1



2

Pl. 7 (Fig. 3.7). Fabrics of two Grey Black Ware sherds from Tell Seker al-Aheimar.



Group 1

Group 2

Group 3

Images 40X

Pl. 8 (Fig. 4.3). Tell Halula and Chagar Bazar. Microphotographs of Fine Ware samples from the three petrographic groups carrying incised-impressed decoration. Photos taken under cross non-polarised light 4.0 mm field of view.



a



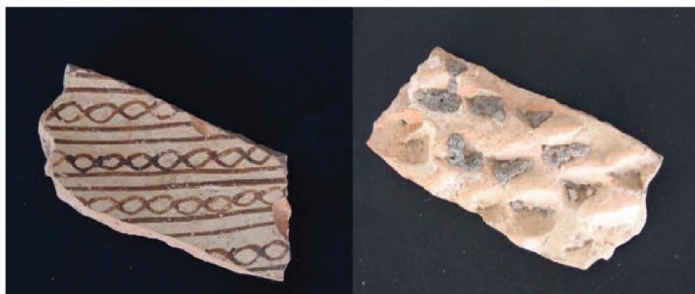
b



c

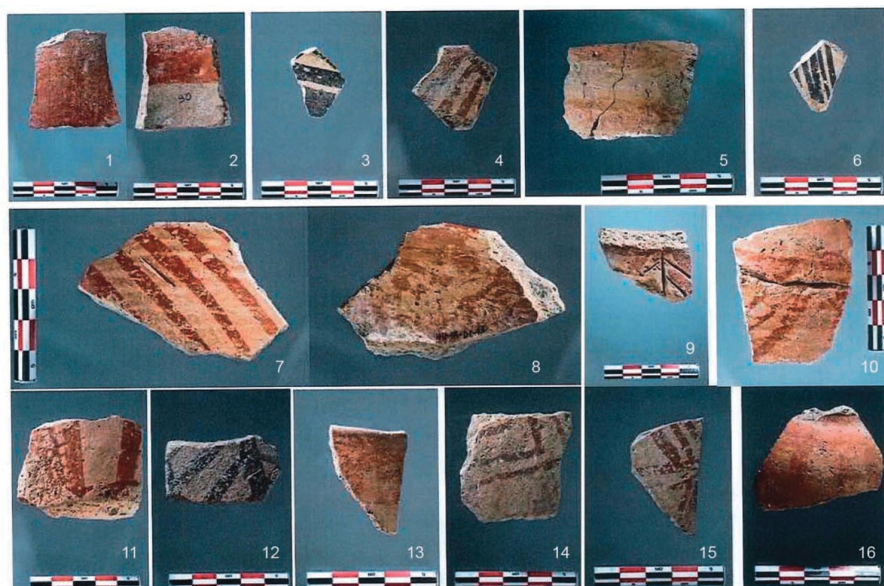


d

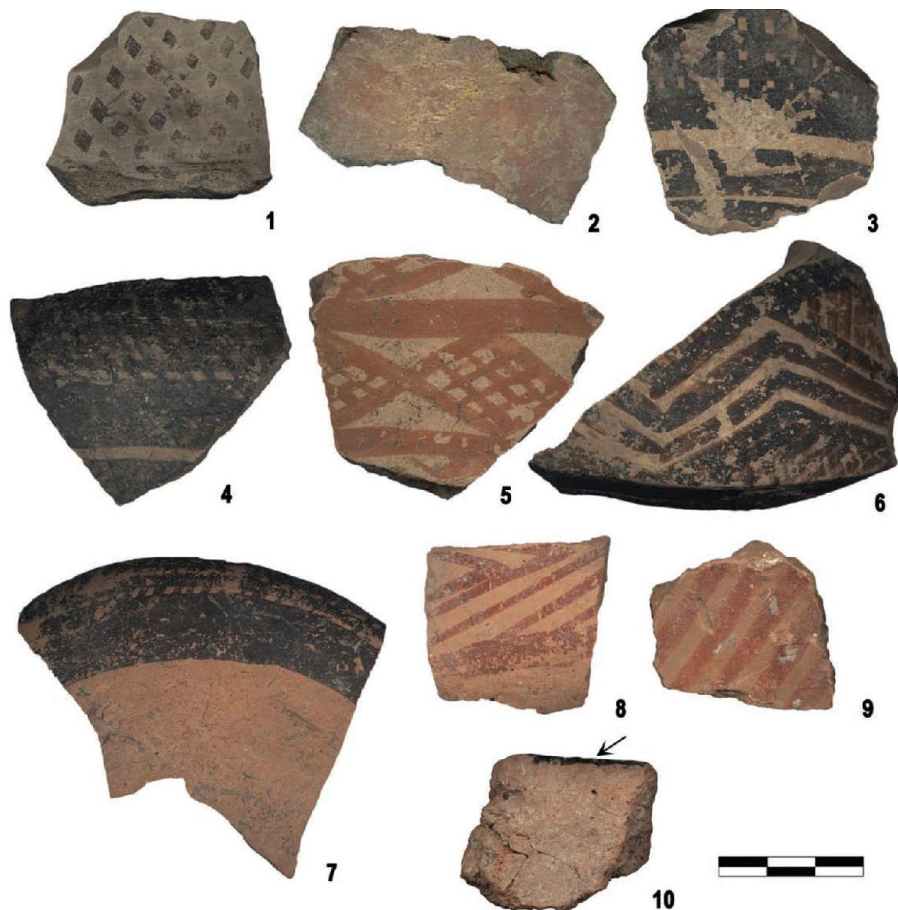


e

Pl. 9 (Fig. 4.4). Tell Chagar Bazar. Examples of Halaf Fine Ware with painted and incised decoration: a. (CB 7969, Phase I); b. (CB 7291, Phase II); c. (L.35, Phase V); d. (L.11, Phase X);



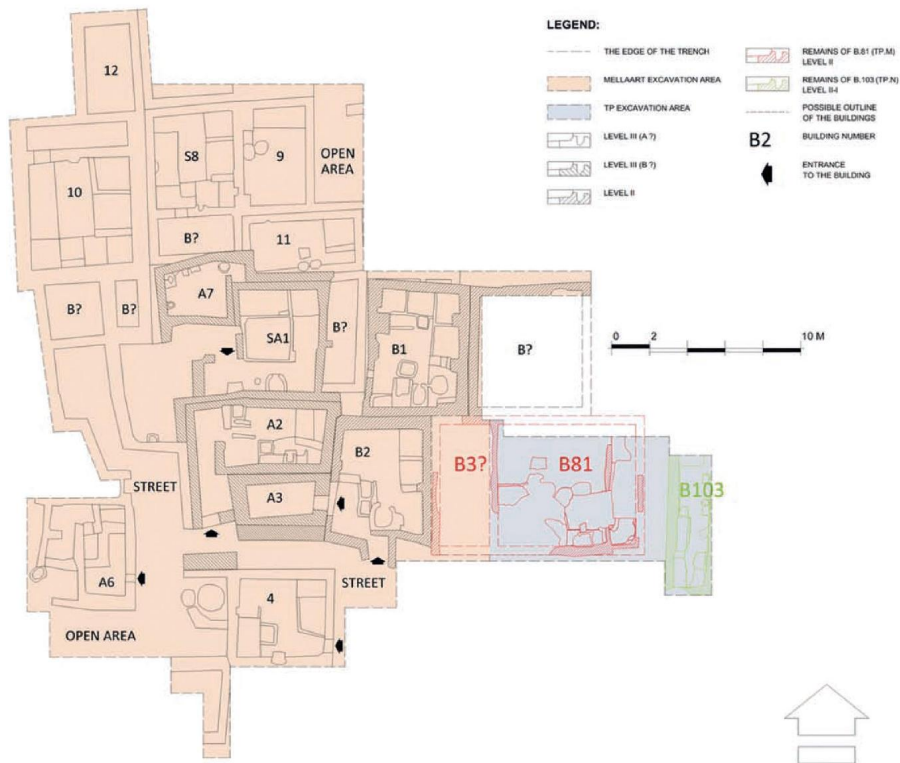
Pl. 10 (Fig. 6.6). Tell Halula. Pottery sherds with painted and painted-and-incised decoration: 1–4: Fine Ware/Mineral-tempered series; 5: Coarse Ware/Plant-tempered series; 6: Fine Ware/Mineral-tempered series; 7–11: Coarse Ware/Plant-tempered series; 12–15: Fine Ware/Mineral-tempered series; 16: Coarse Ware/Plant-tempered series (photo Sappo/UAB).



Pl. 11 (Fig. 7.1). Tell Arbid Abyad. Photographs of analyzed pottery samples: 1. Standard Fine Ware/Halaf Fine Ware; 2. red slipped Standard Ware; 3, 6, 7. Halaf Fine Ware; 4, 5. Standard Fine Ware; 8. Fine Painted Ware; 9. Orange Fine Ware; 10. bitumen painted Standard Ware.



Pl. 12 (Fig. 8.3). Çatalhöyük East. North section of the TP trench and dating of main buildings B.81 and B.61 (photo: L. Czerniak).



Pl. 13 (Fig. 8.4). Çatalhöyük East. TP area: Building B.81 and its context. Çatalhöyük Research Project (drawing: M. Barański).





Pl. 15 (Fig. 9.5). Hakemi Use. Archaic Hassunan bowl from Level 4.



Pl. 16 (Fig. 9.6). Hakemi Use. Samarran sherds from Level 1.



Pl. 17 (Fig. 9.7). Karavehyan. Early Halafian sherds.



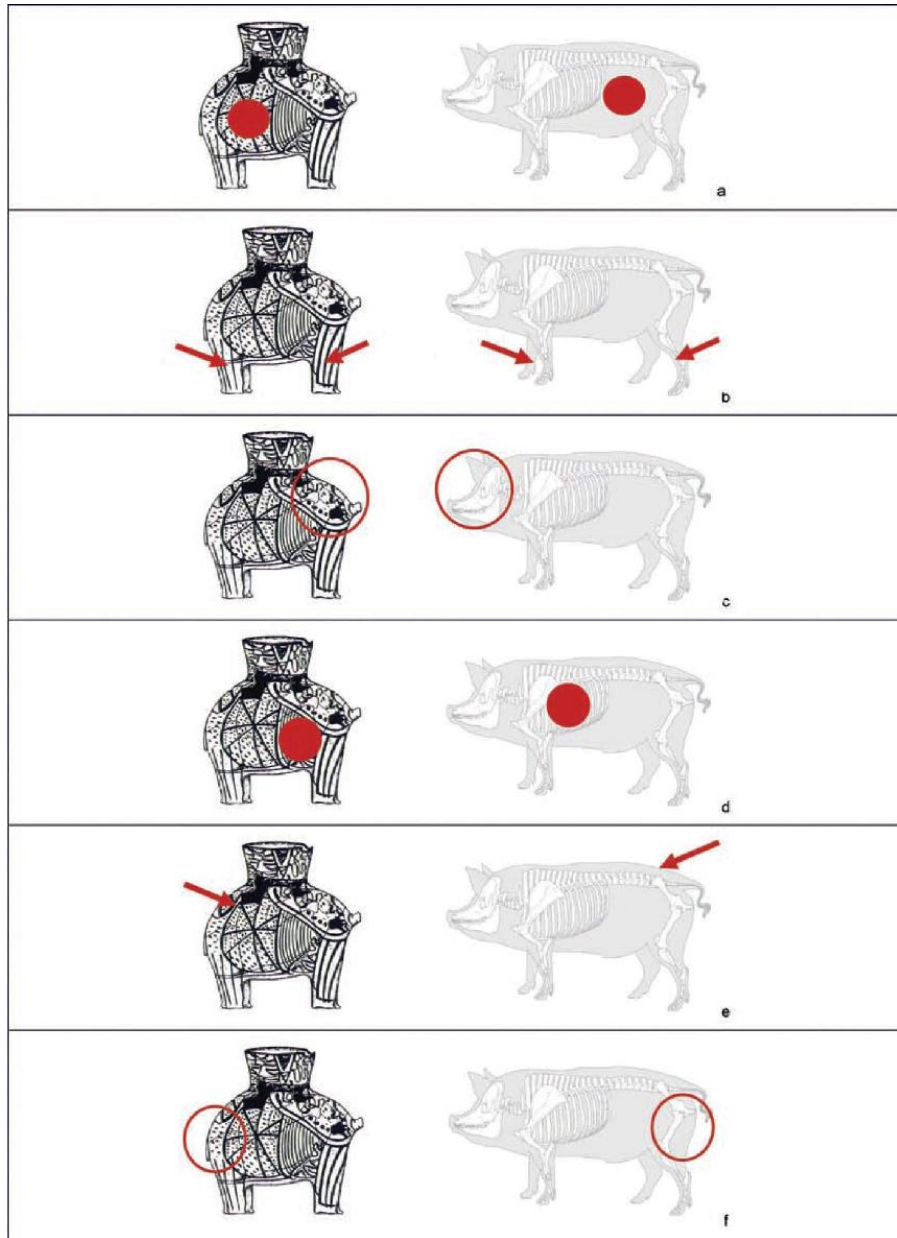
Pl. 18 (Fig. 10.2). Tell Sabi Abyad: a–b: red-painted Standard Ware; c: white-slipped-and-painted Standard Ware; d–f: Orange Fine Ware. No. g: Fine Painted Ware (after Nieuwenhuyse 2007).



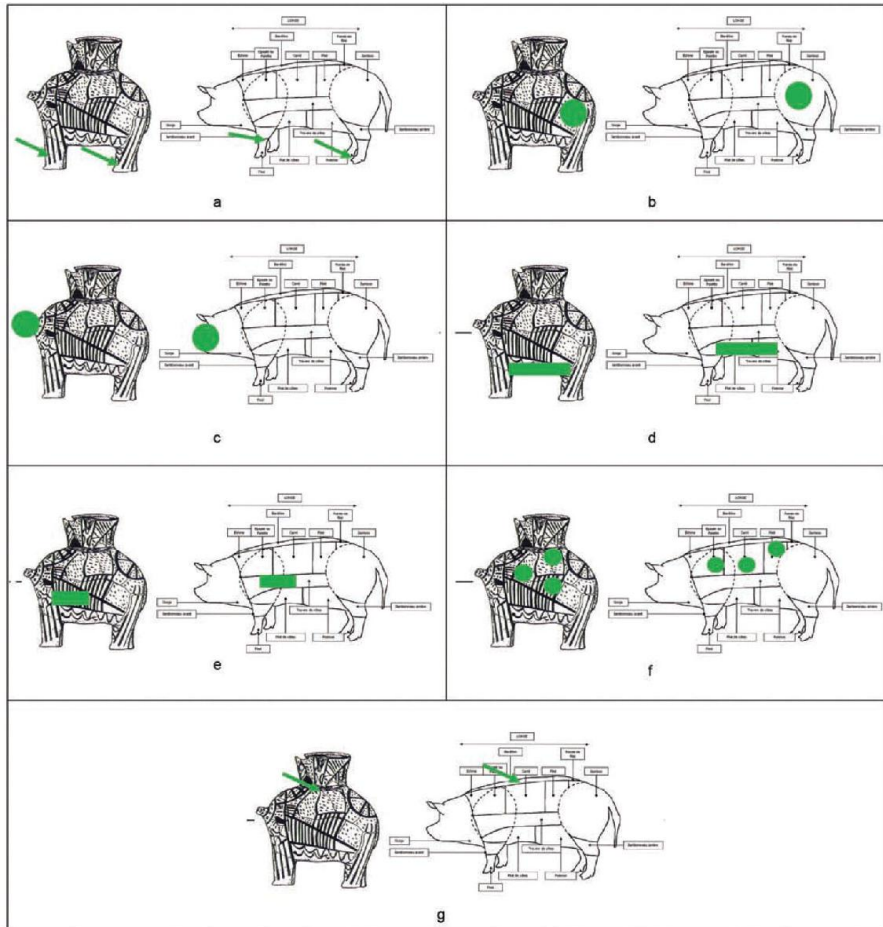
Pl. 19 (Fig. 10.3). Tell Sabi Abyad: a–b: bitumen-painted Standard Ware; c–f: Standard Fine Ware; g–h: incised-and-plastered Grey-Black Ware (after Nieuwenhuyse 2007).



Pl. 20 (Fig. 10.4). Tell Sabi Abyad: a: Standard Fine Ware; b: Halaf Fine Ware (after Nieuwenhuyse 2007).



Pl. 21 (Fig. 11.8). The pig-shaped vessel Yarim Tepe II showing successive stages of die-cutting or quartering (after Merpert and Munchaev 1993, 147 and <http://www.archeozoo.org>).



Pl. 22 (Fig. 11.9). The pig-shaped vessel Yarim Tepe II showing the second stage of die-cutting and quartering (after Merpert and Munchaev 1993, 147 and <http://chefsimon.com/produits/morceaux-porc.html>).



Pl. 23 (Fig. 12.6). A group shot of selected Amuq C period painted vessels from Tell Kurdu.



Pl. 24 (Fig. 16.8). Plaster-coated Ware with red paint. Central Area at Tell Ain el-Kerkh.



Pl. 25 (Fig. 16.9). DFBW with red paint (hardly visible). Central Area at Tell Ain el-Kerkh.



Pl. 26 (Fig. 18.1). Tell Sabi Abyad. White Ware sherd showing black charcoal stripes on the interior (photo: author).



Pl. 27 ([Fig. 18.2](#)). Tell Sabi Abyad. White Ware sherd showing red wavy lines on the exterior (photo: author).



Pl. 28 ([Fig. 18.3](#)). Tell Sabi Abyad. White Ware sherd showing red coated interior (photo: author).